MASSACHUSETTS PLOUGHMAN

DEVOTED TO AGRICULTURE, HORTICULTURE, THE FARM AND THE GARDEN.

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AGRICULTURAL.

Running in Debt for Farms.

Buying more land has from the earliest settlement of the country until within a few years been the temptation hardest to resist to which the mass of American farmers have been exposed. And they have not resisted it to any notable extent. To secure the land adjoining him, which almost every farmer deems essential to the proper management of his original acres, has been deemed right, even though the entire value of the land remained on interest as a lien against the whole. This was so long almost universally profitable that many believed it would always be so, and that land must continuously rise wherever it was good land and rightly located.

This illusion began to be dispelled even before the civil war, by the rapid opening of Western lands that could be had free, and which both in fertility and ease of cultivation were equal to if not superior to the longer tilled lands of Eastern States. When railroads were extended to those new lands, as they soon were, serious competition of the east in grain growing was at an end. Land did not decline even then, for farmers turned their attention to crops in which competition was less scarce and which generally required much more hand labor. Many of these attempts were successes, and this involved in such neighborhoods a rise in the value of land. Best of all, many who then bought small parcels of land for gardening and small fruit growing were able to pay for them in a few years, and their land has been growing more valuable ever since.

During the era of the civil war, especially in its later portion, land values apparently made a great rise in prices because of currency depreciation. The nominal prices of farming lands were then higher than ever before, or than they have ever been since. Generally, however, if these high-priced lands were reduced to the gold basis they would not be more than the price before the war, except land that was located so near growing cities that it either did or was likely to come in use for residence, and could be sold in blocks for city lots. The farmer who in this era of nominally high-priced land could sell his distant farm property for cash and make his living elsewhere did well. Yet some, poor fellows, were buying more farm land even then, and have either sunk under their burden or been staggering under it ever since. It was, in fact, a time when many bought land, for the nominal high prices of all farm products gave them the idea that if they had land enough to produce more they could make money very rapidly. But the cost of labor and of living was still higher, so that the farmer, despite the high sales of his products, lost rather than made money. It was an era of general extravagance in living, running in debt, mostly for land, and only those who were then accounted extremely penurious made any money. The era ended a quarter of a century ago in the panic of 1873, and was for several years followed by declines in value of land as well as of most farm products.

There has been the past few months a revival of all business activities, and it has recently had its effect in marketing city real estate at good prices. Will this boom reach the country districts and increase the values of farming lands? It has done so at the West, where the farmers produce most of the grain and meat products which we largely export. So far the boom in business has been extraordinary in the way it has affected different occupations. Some it has apparently not affected at all. The distinction, so far as we can see, is that the men who are going ahead with courage and activity are already making money. Those who are not ready to get on the car of prosperity will do so later, and then they can make money also.

There is no reason why the present boom in business should not last. We are on a gold basis and there is no depreciated money behind the boom to give it a fall. Not only our gold product, but our silver product as well, will aid us in the near future when this country does its part in supplying the hundreds of millions in Asia with what Great Britain has heretofore supplied them. Within a few years there will be calls for grain and provisions from the United States as well as of manufactures. This country can supply in either branch more cheaply than any other. For these reasons we believe that the boom which has already reached the farmers of the West, and in many cases has doubled the value of their lands within the past two years, is sure to pass the Alleghanies and affect the business men and the farmers of the East. It is a better time now for industrious men who want to begin farming to buy land than it has been in nearly 50 years. Most of the manufactories, except where a few unfortunate strikes prevail, are now running full time, and all are sure to soon do so. With the revival of industry in all our factories, and its employment on full time, there will before next fall be a demand for all that New England farmers can grow, and at prices better than they have lately been accustomed to. One or two years later the boom in land values will come. So soon as it is seen that money can again be made from land by cultivating it, there will be more ready to buy than to sell. The present boom has been coming so naturally, by the enormous excesses of our exports above our imports, that we have become the largest holder of gold in the world, as this country has for years been its largest holder of silver. Most of our foreign indebtedness has been paid. If it had not, our gold imports would have been larger than they have been. There is, therefore, nothing, apparently, to interfere with a general return of prosperity, that will affect not merely the manufacturer and the speculator, but the farmers of the country as well.

Beyond the Chemist.

A debt of gratitude of considerable size is owing to the chemist by the owner of this cow for telling him what feeds he must use in order to get the greatest return in milk for the feed fed. He has analyzed milk and found in it certain ingredients, and in certain feeds he has found the same ingredients, and the careful experimenter has demonstrated that to get the milk we must feed the feed containing the same ingredients as does the milk. But the cow has certain predilections of her own, and of two things that the chemist says have the same ingredients, of the one she will give a fair mess of milk, while of the other she will not. A pound of corn cobs is worth from two to three times as much as a pound of ensilage, but put a mess of corn cobs before one cow and a mess of ensilage before another, and see which gives the most milk.

There is no reflection upon the work of the chemist in this. There undoubtedly is from two to three times as much feed value in a pound of corn cobs as there is in a pound of ensilage, only it is not in such a form as is best suited to the cow. Now this is an extreme case. But is it not fair to suppose that in the commoner feeding stuffs there are certain feeds or certain combinations of feeds that have the same chemical value, yet the one is better for feeding than the other? Since we cannot take the stand that a pound of protein is a pound of protein wherever found, would it not be advisable to find just what pounds of protein are most valuable? Linseed meal for an example has in addition to its feeding value a value as a medicine in keeping the bowels in good condition. Now may it not be true that some feeds by reason of their action upon the digestive organs are worth more than their mere feeding value? The farmer is not the man to determine these questions, for he has neither the time nor the means at hand, but it seems to me that such a question would well repay the time of some of our experiment stations. P. B. CROSBY.

Baltimore County, Md.

Dairy Notes.

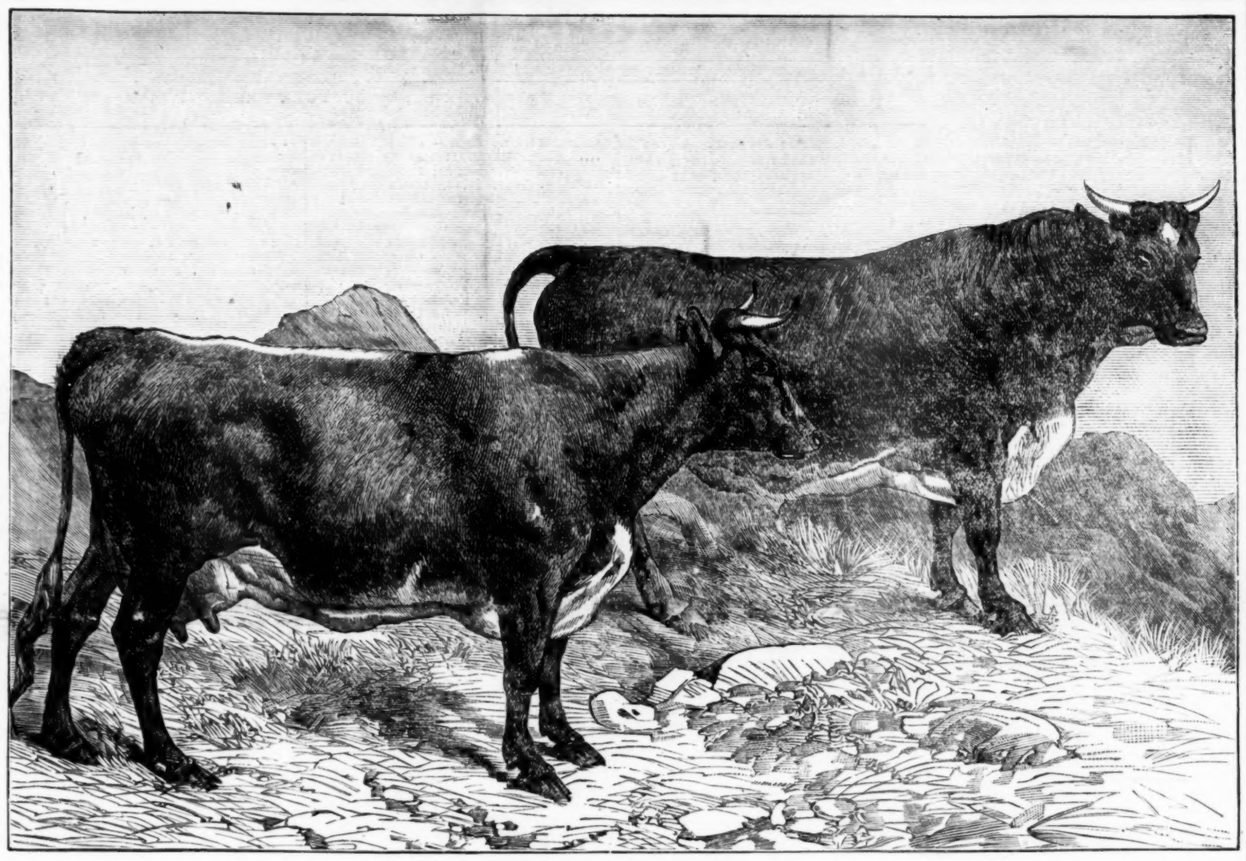
Pasteurization may prove an effectual remedy for some of the many troubles which sometimes occur at the creamery, which reduce the quality of butter that should be extra down until it ranks only as second or even a lower grade. But if the cause of the trouble can be learned and removed it will be better than curing it, for it will prevent it.

It is not generally claimed that heating the milk or cream as prescribed in the Pasteur process makes butter of any finer flavor than could be obtained by the usual process which requires less labor. Some have acknowledged that the butter from pasteurized cream lacks in flavor when first made, and that it requires to stand a week or two to ripen after churning before it has attained its less flavor or most delicate aroma.

This is natural enough. Whether we accept the old theory that flavors are volatile and driven off by heat, or the more modern idea that heat destroys bacterial germs, it is reasonable to believe that whatever drives off the bad flavor or bacteria must also affect the good flavor.

But the butter makers should strive to remove the necessity of destroying flavors, and we will say the cheese makers also, by beginning first with a careful inspection of the milk as it comes in. Cans should be clean outside and in, and should have no disagreeable odor while the milk is in them, or after they are emptied. We have noticed in some cases an odor in the can after it was emptied, and while it was being rinsed out, which we did not detect while milk was in it. The clean, fresh smell of the milk overpowered the taint in the can, and perhaps this was not enough to seriously injure the milk if it did not remain there long, and if it was diluted by being mixed with other milk in untainted cans.

There is also sometimes an odor to the milk which does not arise from unclean cans, but is far worse. It may come from improper food or unclean water given the cows, or from an unhealthy condition of one or more animals in the herd, or it may have been acquired by absorption from the impure air or water where the milk was kept. It may require an expert with a keen scent to detect these odors, or perhaps more than one expert, for after a little while one nose would get tired, or fail to do its whole work, at least after having inhaled a few offensive odors, and would not notice other cases less powerful.



THE GLAMORGANSHIRE BREED OF CATTLE.

Of course, it is the duty of the butter maker to keep all the utensils inside the creamery or cheese factory in perfect condition, allowing no decomposed milk or curd to linger in or around any of them, or even to come from waste pipes through which is carried off any waste, even to the water used in washing utensils. These last are more often neglected than any other one thing perhaps, as the milk does not come in direct contact with them, and not every one thinks of the foul air and odors which arise from them.

Pure air should be abundant inside, and that this may enter and flies be kept out screens should always be provided for doors and windows in hot weather. It should be remembered, too, that not all the air out of doors is pure and free from bad odors or bacterial germs from dust. If air is to come in freely it should not bring these with it, and it may be necessary to keep the windward side of the building closed, and almost hermetically so at some times, to keep out such penetrating odors as those of the skunk, of carrion, of some artificial fertilizers, of smoke from peat or resinous woods, and even the odor of some flowers, not so bad of themselves, but entirely foreign as flavoring for butter.

All these precautions are only less important in the private dairy than in the creamery, because the amount of the product is less, but where they are neglected it is not easy to produce butter or cheese that will be graded as extra. And it is easier to guard against these dangers in a home dairy where the butter maker knows each cow and its conditions, than at the creamery, where nothing is known of them excepting as revealed by the character of the product.

It may be necessary, as one writer has suggested, that all cans should be thoroughly cleansed and scalded at the creamery by its employees, and we think few dairymen or their families would object to being relieved of this labor, but it would be of little use when separator milk or whey is to be carried away in them, and the imputation that such supervision was necessary might be resented by those who least needed it, and might also make it more difficult to detect those who were neglectful about taking proper care in other parts than the cleaning of cans. The dirty and foul can may point out the man who would be likely to have dirty milk pails and filthy stables.

At an experiment in England they found that a herd of 30 cows gave a profit of $15 per week more when the temperature of the barn was kept at 63° than when it was kept at 52°. If this is so, we wonder what the profit would be, or if there would be any, in a barn where the temperature fell below 32°, so that the manure froze behind the cattle. We believe it would be a loss, and if the time when it is so cold lasts but a few days, it is not easy to bring the cows back to giving as much as they did before the shrinkage began.

A writer in the Dairyman reports an experiment made with cows which had free access to water from a spring in the side hill piped into a tank which never freezes. Four of them were given, after supper, as much warm water as they would drink, and they took from one to three gallons each, after having had what they wanted at the tank. The daily gain in milk was from 29 to 33, 24 to 26, 26 to 28 and 20 to 21½ pounds, respectively, or 8½ pounds for the four cows. This gain was kept up as long as the warm water was continued. What would have been the gain if all their water had been warmed? We think it would have been more than twice as much, as some years ago we reported results in a dairy where all the water at the trough was heated, and the results as we remember them were that the record of milk sold was some two or three quarts per day as an average for each cow more than the same herd had given the winter previous. As the milk was all sold the record was easily shown by the monthly receipts, and with a herd of 20 cows it was an important item. It more than paid for the fuel, and the day's wages of the man who kept up the fires, though it took but a little of his time twice a day.

These three experiments are all given together, because we do not believe the use of warm water would give such results, if the barns had been so cold that water would freeze in them, though it might have proved of some benefit. Make the barns warm first and then try warming the water. The increased profits will soon be enough to pay for a new barn if there is a good market for milk or milk product.

Best Use of Screenings.

Many farmers are troubled to know what to do with their grain screenings. They are full of weed seeds, which should not be allowed to get back to the farm again, albeit there are probably many more left in the soil from whence these grew. It seems a pity to lose the grain, shriveled though it be, that is still among them. When we began farming we used to give the screenings to poultry, thinking that if the weed seeds were eaten the powerful digestion of fowls would destroy their germinating power. Some kinds of seeds can be destroyed if eaten by fowls, but others cannot, and still others the hens won't eat at all. After a while we found another trouble which was worse. In proportion as we fed wheat screenings mixed with red root and other weed seeds, in place of whole wheat, egg production lessened. We are satisfied that fowls will eat some weed seeds that injure their egg-producing capacity.

Then we tried taking the screenings to mill and grinding them as feed for pigs. But if there were too many ground weed seeds in the meal the pigs got off their feed. There is very little nourishment in most of the common weed seeds, anyway. If there were the plants growing them would have some better name than weeds. We finally came to the conclusion that the best use of a weed seed was to put it in a hot fire and burn it, and that all our troubles came because we had been trying to get along with the old-fashioned farming mill that our father had always used. With an improved mill, properly fitted with sieves, all the shriveled grain worth saving can be put in a heap by itself, and the weed seeds even can be separated if it is desired. Then put all the weed seeds in the fire, and if they do no more good to anybody, there is certainty that they can do no more harm.

The worst weed seeds where wheat is grown are those of the red root and poppy, especially the former. Red root seeds are so large that it takes a first-class mill to separate them from wheat. We have often seen farmers sowing wheat that had occasional seeds of red root among it, left by careless winnowing of the grain. What wonder is it that if red root is sown it increases amazingly. It is one of the most prolific of weeds, and as it always ripens just before wheat is cut, and the following year just before clover is cut, much of this seed is shelled on the ground, in which it will lie for years until it is brought near enough to the surface to grow. Hens can be made to eat red root, but we doubt whether they digest all of it, and know that it is injurious to their egg-producing powers. Yet on sandy land, where wheat and clover had alternated for a long term of years, we have seen wheat at threshing time turn out more red root than grain, though all the grain was cut and saved while bushels of red-root seed lay scattered on the ground. That farmer has never since dared to put wheat on that field. Growing spring crops for a long series of years is the only way to get rid of it, as the red root is biennial and must start its growth in the fall.

Warmth from Living Trees.

Whoever on a cold day passes from the open fields into a forest, particularly of evergreens, is at once conscious of a change in the temperature to several degrees warmer than he had before felt. This is not due to imagination, nor yet wholly to the fact that behind the shelter of trees the sensitive human skin cannot be successfully affected by blasts of wind each as cold as the one that preceded it. In the stillness of the dense forest the air that a person's body has warmed under the clothing around him remains for a few seconds at least. Where the fiercest blasts prevail, air that touches the body is at once blown away and immediately replaced by air as cold. There is perceptible warmth, even by the thermometer, going out from the living tree in a dense forest. The surface is covered with snow, and its roots, even those that are nearest the surface, are in unfrozen soil, and even in the coldest weather send tiny veins of sap up to the tree as the promise of what spring shall bring. Thus each tree gives out a little warmth, and each helps not only itself but all the trees near it. Rivals as these trees are in summer each one trying to get the most toothold and the most sunlight, they are far more companionable and friendly in winter, when common adversity has hard hit them all. In this the trees seem very human like and often better than human beings under adversity can attain.

Canadian Fruit for Export.

At a meeting of the Fruit Growing Society of Quebec, among the addresses made was one by Mr. R. W. Shepard, upon the apples to be grown for export, which contains some hints which may be valuable to orchardists in northern New England and New York, who grow fruit under conditions similar to those on the north side of the St. Lawrence.

He said until about 15 years ago the early apples were most profitable to grow, as they found a home market when people were hungry for them, but refrigerator cars of California fruit now come into competition with them and made them unprofitable, unless they were sent to England in cold-storage steamships, and this had not always proved profitable.

The Emperor Alexander had usually been profitable when picked carefully and early and well packed in barrels. It stands considerable rough handling, and yet reaches the other side in good condition. Canada can grow the reddest and the handsomest apples in the whole world. If the Fameuse, McIntosh Red, Canada Baldwin, Canada Red, Winter St. Lawrence, Scott's Winter and Blue Pearmain are grown, and all early apples and those without color are left out, they are likely to prove profitable apples for the English market.

The orchardist must keep up to the demands of an advanced age and be prepared to meet opposition. The people of England are growing more and more in love with the peculiarly delicious flavor of that queen of apples, La Fameuse, and there is an almost unlimited demand for it there. McIntosh Red he thought the second most profitable apple to grow for export. Its quality is good, but not as delicious as that of the Fameuse. It is larger in size, with almost the same texture and whiteness of flesh, and surpasses all other Quebec apples in richness of color. It is much affected by fungi, and the spraying pump must be kept in use if fine, clean fruit is to be obtained. Those who have large orchards of Duchess will do well to top graft them into one or both of these kinds.

There is room for improvement in the cold storage arrangements for shipping apples to England. He had found it difficult to obtain it in September, when much of it was engaged for carrying butter, and which is carried at a temperature too low for apples. He had sent Duchess packed in cases in the compartment occupied by eggs, but the result was most unfortunate. There should be cold storage room for fruit in September and October. The season for shipment in cold storage from Montreal lasts but six or eight weeks, but the value sent last season was about $900,000 worth, and it was probably higher in 1896.

It would soon pay the steamship companies to provide cold storage for all shipments, as the business is now only in its infancy and as a memorial is being prepared asking the Dominion government to assist in obtaining such better facilities as the trade requires for storage and ventilation in the steamers for export trade.

Another speaker said a visit to the London market had convinced him of the importance of attractive packing. Boxes of convenient size, lined with clean paper and filled with carefully selected apples, found ready sale, and the apples brought a higher price than those in barrels.

Combinations of fruit growing with the dairy interests and with bee keeping were advocated by some, but legislation was needed to protect the bees from injury by spraying trees when they were in blossom.

Vegetables in Boston Market.

The pleasant weather last week tempted many farmers to stand with their wagons on South Market street, but they are scarce this week. The trade is fairly good and prices steady on winter vegetables. Hothouse and Southern products not very plenty, and generally taken at an advance over last week's quotations. Beets and carrots are steady at 40 to 50 cents a box, parsnips at 60 cents, and flat turnips at 35 to 40 cents. Sweet German turnips are scarce, and would sell quickly at $1.25 a barrel, with yellow at 80 cents to $1. Onions are quoted at $2 to $2.50, but anything good brings $2.25 or more. Leek quiet at 40 to 50 cents a dozen, and chives at 75 cents. Radishes lower at 15 to 30 cents a dozen. Salsify in small demand at 75 to 90 cents a dozen. Celery mostly at $4 to $5 a box, but a few boxes may be 25 to 50 cents higher or lower, according to quality. Cucumbers from $8 to $16 a hundred, according to size. Peppers in small demand at $2 a case. Artichokes dull at $1 to $1.25 a bushel.

Cabbages are 80 cents to $1 a barrel for green and $1.75 for red. Cauliflowers $3.25 to $3.50 a case, and sprouts 20 to 22 cents a quart. Lettuce from 35 to 60 cents a dozen. Spinach, native, at 90 cents a box for native, and $2.50 to $3.25 a barrel for Norfolk, $2 to $2.50 for Baltimore. Dandelions $1.25 a bushel. Endive, scarce, but if any were in it would sell $1 to $1.25 a dozen. Parsley advances to $3.50 a bushel. Egg plants $2 a case. Hothouse tomatoes from 25 to 50 cents a pound and Southern at $2 to $3 a carrier. String beans: Florida green firm at $3 to $3.50 a crate, and very nice ones might sell higher. Rhubarb 10 cents a pound. Asparagus variable in size of bunch and quality, mostly selling for $2 to $3 a dozen. Mushrooms at 35 to 60 cents a pound.

There is no better demand for squashes, and prices are steady at 40 cents a barrel for Marrow, 50 cents for Turban and Bay State and $8 to $10 a ton for Hubbard. Potatoes are in liberal supply, though receipts were light last week, but there is only small demand. Arcostocks sell at 53 cents a bushel for Dakota Red, 60 cents for fair to good Hebrons and 63 cents for extra. Green Mountains 70 cents for good to 73 cents for extra, New York Rural and Green Mountains 50 to 53 cents, Burbanks and White Stars 45 cents, and Western Green Mountains dull at 45 to 53 cents. It takes choice stock to bring full quotations. New Jersey sweet potatoes, double-head barrels, from $1.75 for inferior to $2.25 for fresh extras.

Domestic and Foreign Fruits.

Apple receipts were light last week and nearly all taken for export trade. Not many selling to country buyers while it is so cold. No. 1 Baldwins and Greenings are quoted at $2.75 to $3.25 a barrel, and a few fancy Baldwins $3.50 to $3.75, Spys at $3 to $4 and Kings at $3.50 to $4, Talman Sweets $2 to $3, cooking apples $1.75 to $2.25. Cranberries are firm, with light supply and small demand. Cape Cod at $6.5 0to $7 for choice dark, and fair to good $5 to $6 a barrel, $1.75 to $2 a box; country, good to choice, $5 to $5.50 a barrel; Jersey $1.50 to $1.75 a box. Florida strawberries are plenty, but not very good; 13 crates in last week, and sold slowly at 25 to 40 cents a quart. Some choice ripe fruit could be sold at better prices.

Florida oranges are scarce at $3.25 to $3.75 for fair to good, and $4 to $4.50 for choice. Tangerines at $2 to $3.50 a half box. Grape fruit at last week's prices, $6 to $6.50 for good to choice, and fancy at $6.75 to $7.25. California navels steady at $1.50 to $1.75 for some not in good condition, choice 196 counts $2.50 to $2 75, fancy $2.75 to $3, 96 to 126 counts $3 to $3.25, seedlings $2 to $2.25 for good to choice, and a few fancy at $2.50. Jamaica oranges $2 75 to $3 a box and $4.50 to $5 a barrel. Valencia at last week's rates, $4 to $4 50 for good, and $5 to $6 for choice to fancy.

Lemons are higher, and 300 to 360 counts are $3 to $3.25 a box. Dates are 5 cents a pound and figs 11 to 13 cents for California and 18 to 25 cents for Turkish. Malaga grapes scarce, $6 to $10 a cask. Bananas, eight hands, 85 cents to $1, large stems, yellow, at $1.25 to $2. Pineapples 25 to 40 cents for ordinary. A few Jamaica 50 to 65 cents each.

Boston Fish Market.

The fish trade continues about steady, with slight changes in prices up to date, but the storm may make fish less plenty before Friday morning, and if so, look for higher prices, as the market is not heavily stocked. Codfish are quiet at 2½ to 2¾ cents for market, and 4½ to 5 cents for steak cod, and haddock from 3½ to 3¾ cents. Pollock are 1¾ to 2 cents, and hake from 2 cents for small to 3 or 3½ cents for large. Cusk in small demand at 2½ to 3 cents, and flounders steady at 4 cents. Halibut 12 to 14 cents. Spanish mackerel at 10 cents frozen and 25 cents not frozen or green, as they are called, per pound. Native mackerel 25 cents each, and blue fish 7 to 9 cents a pound, both frozen. Florida buck shad at 30 to 35 cents each, and large Georgetown at 75 cents each. Roe shad at $1 to $1.25 each for Florida, and $1.50 for Georgetown. There are green pompano at 25 cents a pound or frozen at 15 cents. Red snappers 8 cents and sheepshead scarce at 12 cents. Lake Erie whitefish 15 cents a pound, striped bass 20 cents, bull heads and lake trout 10 to 12 cents, sea trout 12 cents, brook trout steady at 50 cents, and pickerel 7 to 9 cents. Choice Penobscot salmon are in at $1 a pound, with frozen Eastern at 16 to 18 cents and Oregon at 8 to 10 cents. Smelts in fair supply but firm at 5 to 7 cents for Eastern, and natives small 12 to 14 cents medium 15 to 16 cents and large 17 to 20 cents. Clams steady at 60 cents a gallon, and scallops $1 25, shrimps $1 50 a gallon or 40 cents a quart. Oysters quiet at last week's prices. Lobsters higher now at 17 cents alive and 20 cents boiled. Salt and smoked fish steady but firm at previous prices.

Puppies kept within doors and in small pens seldom if ever develop properly, but go over on their legs and feet and fall out of shape generally.

Washington Agricultural Notes.

Alaska is to have a regularly organized experiment station and an annual appropriation of $15,000, the same as the other stations. Professor Georgeson of Manhattan, Kan., will shortly go out and take charge of the work. Mr. Georgeson spent last year in Alaska, and brought back some fine reports of the agricultural possibilities of the coast country, and some remarkable specimens of grain, grasses, potatoes, etc., which he had grown there. He believes that the country can be practically self sustaining to the large number of miners who annually invade its mining regions, and he further believes that for scores of years to come the mineral output of the country will be very large. This gold will all eventually find its way to the States, and tend to enrich the nation.

Consul Diederich of Madgeburg, Germany, makes a supplemental report on the beet sugar crop of Europe, in which he states that the expected shortage of 350,000 tons is probably reduced by 200,000, owing to the more favorable prospects for the output of Germany and France. He yet states that the figures are approximate, and that not until the last beet root has been taken from the silos and sliced will it be possible to state definitely the crop. Owing to small home consumption Germany is obliged to find foreign markets for two-thirds of her product, and most of this has heretofore gone to the United States. The great problem, says Mr. Diederich, at present is: When Cuba, Porto Rico and the Philippines increase their production of cane sugar so as to supply the United States, what will become of the large surplus of German beet sugar.

Experiments at the Ohio station have demonstrated clearly that the apple scab is the chief factor in the destruction of the apple crop, and that this fungus can be kept under control by spraying. Four splendid successive crops were produced on the sprayed trees at the station, while the fruit on the unsprayed trees in the same and neighboring orchards was worthless. The director, Professor Thorne, however, calls attention to the fact that exhaustion of soil fertility, waste of water and insect ravages may all co-operate with scab or other fungus growth in shortening the crop, and says: "If our orchards are again to produce the great crops of earlier days, we must, in so far as possible, restore the soil conditions to those days; we must avoid the waste of water in those sections where rainfall is scanty, by preventing the growth under the trees of weeds or grass, and by keeping the surface in such condition as to prevent evaporation."

Assistant Secretary Brigham, of the Department of Agriculture, states that this year's distribution of seeds is the most satisfactory that has occurred. The seeds are being sent out by a New York firm which has its plant in Washington, so that operations are directly under the eye of the department. Laboratory tests are now being made of all seeds to show the germinative qualities, and during the coming season field tests will be made on the small "farm" which the seed testing section has secured near the city. This test will show whether the seeds furnished are true to name, and if they are not drawbacks will be made by the department from the price for which the seeds are contracted.

The agricultural appropriation bill carries a recommendation from the Secretary of Agriculture for $50,000 to be expended in making detailed examination of the water supply and possibilities of irrigation in the arid States and territories. What is termed by Westerners as "arid America" is a vast stretch of country comprising millions of acres regarding which the general impression in the east is that it is useless alkali land, and that it is a waste of money for the Federal Government to attempt schemes for its reclamation. While at the present time this land is arid and incapable of producing crops, it is not useless so long as the water supply adjacent to it is unused. The official figures of the Geological Survey show 71,500,000 acres of unreserved public land in the so-called arid States, for which a water supply is available, and which are irrigable and capable of producing enormous yields. It is not, however, proposed by Western advocates of irrigation that the Government shall irrigate these lands at enormous expense, but that it shall simply investigate the question thoroughly and aid in the solution of the problem. Secretary Wilson says: "It is clear that a crisis has been reached in the life of the communities in which agriculture is dependent upon its success for irrigation. The laws and regulations relating to irrigation, which have grown up in those communities, have in many ways proven so unsatisfactory that immediate action is demanded for their reformation. Unfortunately the accurate information on which alone intelligent reforms can be based is almost wholly lacking. It is therefore highly proper that the national government should undertake investigations to aid in the solution of the problem."

Eastern men are somewhat disposed to antagonize measures relating to irrigation as being of only local benefit to the West, and as even injuring the Eastern farmers by opening more Western land, whose products will compete with their own. How is this? Would the products grown on Western irrigated land in any way compete with those of the East? Take southern California, for instance. There are now in that State large areas of irrigated land, and there are millions more acres subject to irrigation with proper water supply regulations. How do the crops of southern California affect the Eastern market? Her principal products are oranges, lemons, olives, grapes (and raisins), wheat, dried apricots, peaches, etc. The fruit products last year of southern California amounted to $21,000,000. California grain is shipped to Liverpool and the Orient, and does not compete with the Eastern States, simply adding slightly to the world's supply. Her fruit which comes East does not in any way compete with the Eastern farmer. The Eastern farmer has not even contributed to any extent of that $21,000,000 to southern California's wealth; that has been paid mostly by the cities and the comparatively wealthy class. But on the other hand it is not to be supposed that money which goes to California stays there. It is immediately sent East again to purchase manufactured articles of all sorts, and the manufacture of these articles in the East creates a demand for the products of the Eastern farm. As a matter of fact the further development of the West, by irrigation or otherwise, would further develop the East, would stimulate its manufacturing industries, and these are dependent for support upon the Eastern farm products.

With all the talk about balanced rations for the cow and the horse, how many people consider what is a balanced ration for a man? The balanced ration for a horse is said to be from one to five and one-half to one to seven. Say on an average one to six. That is, one part of nitrogenous compounds to six parts of carbonaceous compounds. It is probable that this would come near being a proper ration for a working man. But how to secure it, that is the question. It must be done by studying the constituents of various food products, and this is one of the most important teachings of agricultural colleges. Knowing the composition of the various foods, it is comparatively easy to secure a complete diet for man or beast. Nitrogenous foods can be classed generally as bone and muscle producing; carbonaceous foods as fat producing. Cornmeal is a carbonaceous food, the nutritive ratio being 1 to 11; potatoes are carbonaceous, 1 to 11.5; entire wheat is 1 to 6.5; refined flour, which loses much of the gluten in the milling, is much more carbonaceous and makes less muscle. Graham flour is more nitrogenous. All the beans are highly nitrogenous. In Mexico and Southern countries the bean serves as a substitute for meat, and beans are served at every Mexican meal the year around. They are strengthening and "stick to the ribs," and men can work hard on them. The cow pea, which is a bean, is highly nitrogenous, the nutritive ratio being one to 2.1. Pease are one to 3.2. Oatmeal may be called a nitrogenous grain, the ratio being one to 5.5. Milk is very nitrogenous, being one to 3.7, but varying some in different classes of cows. Skimmilk, which, in the cream, has lost only fat, is 1 to 2.1. Buttermilk is still further deprived of fat and is 1 to 1.7. Lean meat is almost wholly composed of muscle and bone-producing material, and should be used as a supplement to corn bread, potatoes, white bread, hominy and other carbonaceous foods. The nutritive ratio of beef is 1 to 5.

GUY E. MITCHELL.

Washington, D. C.

Bees and Honey.

The station agent at Thorndike, Me., began last spring with 25 colonies of bees. From them he took 600 pounds of comb honey, and he has now 45 colonies well supplied with winter stores. How is that for success? We do not know Maine prices, but here in Massachusetts the comb honey should be worth from 12 to 15 cents per pound, or $72 to $90 for the lot, and the 20 colonies of increase from $3 to $5 per colony, beside cost of hive, or from $60 to $100 more.

Beekeepers often are the ones who are in fault when honey sells at prices which are not satisfactory to them. And this is particularly true of those who extract this honey. They will not wait until the comb is full and sealed, which is the only guide to tell when it is thoroughly evaporated and ripened, or fit for marketing and eating, and thus they have a product which is light weight, and of which an experienced buyer is afraid, and which the consumer who tries once does not care to buy again.

Some do not put it up in neat and attractive-looking packages, and this is true also of some who sell comb honey, and extracted honey is sometimes put upon the market too early in the season, when people are supplied with small fruits and berries. Not many have become accustomed to using honey for preserving fruits, and until it is more generally used for that purpose it is better to hold back the new honey, and let such as want it then clean out the old stock in hands of dealers, which will make the market better later in the season. Then there are those who through ignorance or dishonesty try to put in the poorer grades or dark honey where the pure white honey is wanted, or to mix them, and those who through foolishness place their honey in the hands of commission dealers who are not regular dealers in it, and who know but little about the difference in quality and care less, if they can dispose of it at some price and get it out of their way and pocket their commission.

All these matters have a tendency to reduce the price upon the better grades of honey, and to decrease instead of increasing the demand for it. Honey should be an article of almost daily use in the family, and the qualities graded and prices as firmly established as those on sugar.

Beekeepers who have large apiaries in some of the States are already complaining because there are so many farmers who keep a few bees, not that they object to fair competition in a legitimate way, but because it is those who have but a little to sell and who do not understand how to put it up or to put it on the market, who hurt the trade in the way we have pointed out. If those who have but a few bees would try to fall into line and keep step with the procession, they would find the older and more experienced beekeepers their best friends, and ever ready to help them with advice and information.

There seems to be in nearly all the writings upon bees that we notice, whether from those who have large apiaries or those who have but a few colonies, a wonderful unanimity of opinion in agreeing that the Italian bees and their hybirds are less liable to trouble from insects like bee moth than are the black bees. With them, in strong colonies, the bee moth seldom gets at the comb in the hive, although it is sometimes difficult to protect stored combs from which the honey has been extracted. These need to be watched carefully.

In some places the larger ants are troublesome, but may be kept from doing serious damage by raising the hive a little from the ground, and taking care that there is no rubbish near in which they can harbor. If very plenty smear the supports of the bee stand with tar or printers' ink, or pour boiling water into their nests, or destroy them with bisulphide of carbon. A little of this poured into the entrance of the ant hill, and confined there by covering with earth or a board, will kill every one.

More than 30 years ago, or in October, 1868, A. I. Root contributed the following statement to the American Bee Journal: "In the spring we selected a strong stock, with a very prolific queen, and first removed every bit of drone comb from the breeding apartment, and supplied its place with clean, straight frames of worker; second, we arranged the second story as it was a Langstroth hive, so as to hold frames above as well as below; third, the honey was removed by the machine at intervals of from three days to a week, or just before the bees were about to seal it up; fourth, as the swarm soon became very populous we were several times obliged to remove comb from the centre, and supply its place with empty frames, to prevent their clustering and "loafing," so that they have in reality built several frames of comb, besides yielding us 203 pounds of pure honey up to this date, July 21, and from appearances we think they are not nearly through yet."

This was nearly at the commencement of the agitation of the question of large hives and movable frames, and perhaps he could tell a larger story now. We think he would not now advise removing the honey from the comb just before it was sealed, but would wait until it was sealed, even if he did not extract quite so much honey.

At that time many ridiculed the idea of the movable frame, and others insisted that the new hives were in no wise better than the straw skeps which were used in Europe almost from time beyond the memory of man. Now all controversy seems to be on the question whether the eight, 10 or 12-frame hive and deep or shallow frame is best, and some go so far as to claim best results from the two-story eight-frame, practically a 16-frame brood chamber, with surplus boxes above that.

THE BLACK SUFFOLK BREED OF PIGS.

BRILLIANTS.

Oh, ask not thou, How shall I bear
The burden of tomorrow?
Sufficient for today its care,
Its evil and its sorrow;
God imparteth by the way
Strength sufficient for the day.
—J. H. Sorby.

Whate'er thou do t on one bestow,
Let each the double blessing know;
Let each the common burden bear:
In comforts and in griefs agree;
And wrestle for his friends with thee,
In all th' omnipotence of prayer.

Our mutual prayer accepted seal;
In all thy glorious self reveal;
All with the fire of love baptize:
Thy kingdom in our souls restore;
And keep till we can sin no more,
Till all in thy whole image rise.
—John Wesley.

Take up the White Man's burden,
Send forth the best ye breed.
Go, bind your sons to exile,
To serve your captives' need;
To wait, in heavy harness,
On flattered folk and wild,
Your new-caught, sullen peoples,
Half devil and half child.
—Rudyard Kipling.

If it be true that on the Judgment Day
The secrets of all hearts shall be revealed,
Had I the power to choose I'd not arise,
But sleep forever in my tomb tight sealed.
Bare, shivering souls, stript of this kindly clay,
Shall we not fear e'en the most loving eyes?
—Lilla Cabot Perry.

Our love is not a fading, earthly flower;
Its winged seed dropped down from Paradise,
And, nursed by day and night, by sun and shower,
Doth momently to fresher beauty rise;
To us the leafless autumn is not bare,
Nor winter's rattling boughs lack lusty green;
Our summer hearts make summer's fullness, where
No leaf, or bud or blossom may be seen;
For Nature's life in love's deep life doth lie,
Love, whose forgetfulness is beauty's death,
Whose mystic key these cells of Thou and I
Into the infinite freedom openeth,
And makes the body's dark and narrow grave
The wide-flung leaves of Heaven's palace gate.
—Lowell.

GEMS OF THOUGHT.

....All that thou givest thou wilt carry away with thee.—Turkish Proverb.

....Speak kind words now, because it will cost something to put them on tombstones.

....Tomorrow will be like today. Life wastes itself while we are preparing to live.—Emerson.

....Prudence is self surrender to the strongest impulse; duty is self surrender to the highest.—James Martineau.

....Friendship is a plant of slow growth, and must undergo and withstand the shocks of adversity before it is entitled to the appellation.—Washington.

....Love, live for, work for, the undying truth and good,—this is the way to nourish an undying vigor of the heart. These are the waters of the Fountain of Eternal Youth.—John W. Chadwick.

....Joy is for all men. It does not depend on circumstances or condition; if it did, it could only be for the few. . . . It is of the soul or the soul's character; it is the wealth of the soul's own being.—Horace Bushnell.

....Intercession is the very safety valve of love. When we feel that we really can do nothing at all in return for some remarkable kindness and affection, how exceedingly glad we are that we may and can pray.—Francis R. Havergal.

....There is only one thing the servant of the Lord Christ cannot do; he cannot stay; he cannot linger, forever looking up into the Master's face. The world calls him. The word of the Master rings out like a clarion, "Go yet!"—David J. Burrel, D. D.

....As a father in a garden stoops down to kiss a child, the shadow of his body falls upon it. So many of the dark misfortunes of our life are not God going away from us, but our Heavenly Father stooping down to give us the kiss of His infinite and everlasting love.—Anon.

...."Occupy till I come." What are we to occupy? The place God has assigned us. It is as wrong to be fretting over our own limitations and to envy the place others occupy as to neglect the obligations of our own place. And such fretting and envying always leads to neglect.

....As we climb the heights of prayer our main work is intercession. The power of intercession is not to be measured; it goes out into the endless connections and sympathies of the spiritual world, reversing, influencing, succoring, consoling in numberless ways.—W. Robertson Nicoll.

....There is a common impression that character is stamped and destiny determined by what is done in the great crises of life. It is important to bear in mind that these crises are not independent of our common hours, but that the work of giving form and bent to character is a matter of daily doing. The work goes on, not only in these moments when we call critical, when great issues hinge manifestly upon our actions, and the eyes of men are upon us; but also in the obscure hours of life, and along the great paths of life's common levels. Much of the work is done in secret, when no eye sees but God's. It will find full revelation in the clear light of eternity.—Baptist Union.

....Eternal God, who committest to us the awful and solemn trust of life, since we know not what a day may bring forth, but only that the hour for serving Thee is always present, may we wake to the instant claims of Thy holy will, not waiting for tomorrow, but yielding today. Lay to rest the restlessness of our passion, indolence, or fear. Consecrate with Thy presence the way our feet may go, and the humblest work will shine and the roughest places be made plain. Lift us above unrighteous mistrust into faith and hope and charity by steadfast reliance on Thy sure will; and so may we be modest in our time of wealth; patient under disappointment, ready for danger, serene in death. Amen.

SCIENTIFIC.

—All code books carried on warships have leaden backs, to make them sink if lost overboard. The letters in the book, moreover, are printed with peculiar ink, which fades away when it comes in contact with the water. To make things still more safe the letters are changed every few months by the navy department. Even on the warships few officers know their vessel's official signal code.

—Italy has had 294 square miles of land added to its territory in the last seventy years, by the advance of the delta of the Po into the Adriatic sea. The measurement has been made by Professor Marinelli, who carefully compared the Austrian surveys to 1823 with the Italian surveys of 1893. The addition amounts to one-six-hundredth of the total area of Italy at the earlier date.

—Lake-level figures received for the year by Secretary Keep of the Lake Carriers' Association show that Lake Superior has been above its average for the past twelve years; Lakes Huron and Michigan one foot below the level of the last twenty-eight years; Lake Erie holding her own. These reports confirm the theory that rainfall alone determines the lake level, and that deepening channels has nothing to do with it.

—Vegetable life is influenced much more by certain kinds of light rays than by others. Four hothouses of red, green, blue and ordinary glass were built, and vegetables of the same species were cultivated in each. The experiment showed that plants in the red house attained a much greater size than those in the blue house. The light through blue glass stunted the plants, which thrive better under green light, still better under the chemical influence of red rays, and best of all in white light.

—The following are some of the deepest wells in the world: In Europe, one at Passy, France, depth two thousand feet; at La Chapelle, Paris, depth 2950 feet; at Grenelle, Paris, depth 1793 feet; Neusalwerk, near Minden, depth 3288 feet; at Kissingen, Bavaria, depth 1878 feet; at Sperenberg, near Berlin, depth 4190 feet; at Pesth, Hungary, depth 3182 feet. The well at Sperenberg, near Berlin, is the deepest well in the world. In the United States there are wells located at St. Louis, Mo., depth 3843 feet; at Louisville, Ky., depth 2086 feet; at Columbus, O., depth 2775½ feet; at Charleston, S. C., depth 1250 feet.

Our Spiritual Forces.

BY LILIAN WHITING.

"The happy conditions of life are to be had on the same terms."

"Happiness is a great love and much seeing."

"Greatness is to take the common things of life and walk truly among them."

"Life and religion are one thing or neither is anything."

"Every gift has its return; every call has its answer in this great live, alert world where man stands central."

To produce and to maintain successful moods: be able to exercise power without conscious exertion or fatigue; to live in the flowing current of progress, and thus receive all the advantages of its strength; to always hold the affirmative force,—how are these conditions to be achieved? For in them lies the key to health, harmony and happiness. Is there a way to achieve these conditions?

The first question, however, to ask is whether their attainment is desirable? There can be but one reply—that it is the one most desirable achievement of life. The attainment is therefore a foregone conclusion. All that is desirable for man is his. It is simply at his pleasure to take it at any moment. The universe is made or man and not man for the universe. All its laws are framed for his benefit; all its resources are created for his use. For man is not merely a dweller upon the earth: he is an inhabitant of the universe. He is a co-worker with God in the development and direction of all the divine creation.

It will be the most potent of aids to the higher morality and nobler purposes when there is a complete, general recognition of the true nature of life in its completeness; when it is realized that the period of terrestrial sojourn, limited, at its utmost, to the years within one century, is not the beginning, nor the end, nor the whole of life; that we have lived before we begin this life, and that we shall continue to live after passing out of the physical body, and that there is no death in the sense of a cessation of consciousness and of development, and that all man achieves here is so much to the advancement of his state in the immortal conditions of endless progress. It is wise to begin any study or any species of mental or moral culture at any period of life: to enter on a new language at fifty, seventy, eighty; or an acquirement of any nature that is enlarging and uplifting in its influence, for it is the spiritual man who acquires and it is the spiritual man who is the real and the immortal being. When he is released from the physical environment he experiences the greatest quickening of all his mental faculties.

The life begun after the event called death is the real life. This part (which men have regarded as the real, and all after it as vague and shadowy) is merely rudimentary and experimental. After escaping from the body, men and women are in a world of which this is the mere prototype; a world of land and water; of air; of flowers and trees, mountains and plains; cities and country; houses, temples; a world where there is thought, invention, literature, painting, preaching, lecturing, education, philanthropy, and in all respects the progressive life of the spirit in its intellectual, moral and divine phases. All that is acquired here is by so much the advancement of a capacity on which to enter this higher, more real and more positive life.

It is in the conditions of that life to exercise power without conscious exertion; to produce and to maintain successful moods; to live consciously in the current of progress, and thus to be strong with its strength; to hold at all times the affirmative force. Now, can we achieve such conditions, here and now? Because if we can attain such conditions, all our present exertions and their results are entirely transformed.

The question then resolves itself into this: Can one live, now and here, in his spiritual forces? Can he invoke this higher self and live in his immortal energies?

He certainly can. There are three-fold observances that lead to this result; a certain care of the body that keeps it light and elastic, and the steady waiver of the directing power within; the activity of mind, which controls and directs; and the uplift of the spirit to God that it may receive of divine power. This divine power is sent in various ways. Each man has his special and individual helpers in the unseen world, who are around him, coming and going as may be, and who help him to recognize the divine will, to walk in the divine way (which is the right way)—and to carry on his work. These unseen friends speak to him, and if he has evolved his spiritual sense of hearing, he knows what they say to him. He hears it so to speak, though hearing nothing audible. He does not see these friends, for the simple scientific reason that the psychic body is in a rate of vibration so much higher than the physical eye can discern. But he may perceive them by virtue of the power of his own spiritual faculties to recognize spiritual beings. We are fast learning that the sight and hearing of the physical senses is but the outward correspondence of the sight and hearing of the psychic body. The supreme aim of all experience is to evolve and develop the spiritual faculties, and to learn to live in them; to learn how to see, to hear, to perceive in a larger and fuller way than merely by the power of the physical senses. The way in which one may unfold his spiritual perception will be discussed in the next paper of this series.

—Boston Budget.

POULTRY.

Practical Poultry Points.

The turkey is a bird that likes to hide its nest as well as almost anything, unless it be the guinea hen. We have spent many an hour in watching a provoking turkey hen that would not return to her nest as long as she could see we were watching her, and sometimes she would manage to slip out of sight if we turned our attention elsewhere for but a moment. Sometimes it is possible to fool them by providing excellent hiding places for them, but it must be done long enough before they are ready to lay, so that the surroundings will look weather beaten instead of new or newly arranged.

This disposition to steal their nests is especially annoying when there is danger of foxes taking the turkey, or minks or weasels taking the eggs. And it is also troublesome, because if the eggs, or all but two or three, are taken away when the turkey is off her nest, she will often keep on laying up to forty or more eggs, most of which may be hatched under hens, and the young poults will be earlier and usually do better with a hen than with the turkey. A young turkey hen is a poor mother, but an old one will usually take good care of her young ones, and strange to say, an old gobbler will often be better than either if he can get them away from the mother. And he appears to take pride in his self-chosen task, and will sooner learn to bring them home every night to be fed and counted, while the mother turkeys may hide away and not come near the house at all if they can find a fair amount of insects in the fields or woods. In this way her flock is often much reduced in numbers by foxes before she will bring them home.

If the turkey's nest is not found and robbed she will seldom lay more than 15 eggs before she proceeds to hatch them out, and then she wants to lay another litter after she has left the first clutch, or before she leaves them, and fall-hatched turkeys are not desirable either to sell or to keep as breeders.

We used to think that the bronze turkey, despite the strain of wild blood that was said to be in it, was not as anxious to hide away as the small black turkey, while the White Holland turkey could be induced to lay in a nest made for her in the shed, as easily as the ordinary hen. Our experience with the White breed was limited, however, as we did not find them prolific of eggs, no were the young ones hardy and easy to rear. We were glad to find some one who want d them more than we did, but perhaps we had not the best strain, or in some way received inferior birds. If others do better with them we would not condemn them from one trial.

If any one thinks his fowl need exercise let him cut up some liver or other cheap meat in strips about as long as his finger, and let the hens out into the yard. Then throw in enough for about one-third of the flock to each get a piece too large to swallow quickly, and see them run with what they get while the other two-thirds chase them They will get a great deal of exercise in a half hour in that way. Hens should not be frightened to make them run about though. Fright will reduce egg production in the hen yard, as surely as it will lessen milk production in the cow yard. And ducks are even more easily frightened, and more affected by fright than hens. Some duck growers do not like to have a stranger visit their yards at all, because of this fact.

Ducks and geese need grit to digest their food as much as hens do, but they differ from the hen in not wanting coarse gravel, or sharp pieces of broken crockery, glass and such material. They like and need good clean sand, and our most successful duck growers mix a certain amount of sand with the soft food whenever it is given. When they have access to ponds or streams and dive for roots and weeds at the bottom they bring up sand enough, but those who rear ducklings without allowing them to go to the streams should not fail to furnish sand. Finely broken charcoal can be used as a substitute for it or in connection with it to good advantage, particularly when the birds are being fattened.

Charcoal in small quantities every day should be a part of the rations of any animals that are fed upon soft food or mashes. It serves to correct any tendency of the food to sour and to greatly assist the process of digestion. Experiments have proven that pigs, turkeys and chickens will grow and fatten faster, and the meat will be more delicate in flavor when it is given them or placed where they can go to it as they will. A half gill of charcoal to four quarts of meal is not an excessive allowance, though they may not need so much. In old times, when people burned wood and frequently put out a pailful of ashes for the fowl to wallow in, they found much charcoal for themselves.

While those who produce eggs for market desire to have the hens lay in winter when the price is high, the fanciers who have pure-bred fowl and sell eggs for hatching do not desire to have many eggs until February. If the pullets can be brought to laying in January they should be giving an abundance of eggs suitable for hatching in February, and if not called for then they can easily be kept a month longer in good condition by putting where the temperature will be at about 60°, and occasionally turning them. And they will be in demand until June or perhaps later, for July-hatched chickens if well cared for will furnish more eggs the next year at hatching time than those hatched earlier.

To obtain pullets and cockerels for exhibition at the fall and winter shows one may need early hatched chickens to bring them to standar weights, but, as we have often said, it is n t the birds that have been in the show room that we would select for breeding purposes. Give us the same mating hatched two months later, not fed for glossiness of plumage nor forced by stimulating foods, and not exposed to the dangers of transportation, much handling, and overheated and poorly ventilated halls, and we think we can get better chickens from them.

Our Egg Market.

It would seem as though, with the tremendous prices asked and received for fresh brown eggs in the Boston markets, the poultry fancier and farmer could better equip his hennery another season with such laying hens and pullets as would be of some service and value to him. A great many think that the market is overstocked in the way of fresh eggs, but it is surprising to one who visits the stores and large market places where eggs are retailed and wholesaled to find that there is always a great scarcity of the best article. Eggs seem to be somewhat smaller and lighter colored than usual, and the demand is far greater than the supply this winter. The prices are very high, and a good egg will easily bring a price that would seem to one not familiar with all the conditions to be exorbitant.

In one store in this city, where the best trade is reached, eggs have been selling as high as 50 to 60 cents per dozen. When you can buy eggs ranging from 15 to 25 cents in the back country and from 5 to 12 cents in the West, wouldn't it seem as though the poultry fancier here was getting more than his brother producers in the West? While grain may be cheaper there, and the cost of maintaining his hennery smaller, still the percentage would not be as great as it is in comparison with the two prices received. Probably no farm product can be marketed so easily and with such a constant demand as the fresh-laid brown egg. The richer the coloring, the better the egg sells in Boston.

It has always been a great problem to the poultry raiser why it is that he cannot make his pullets lay in the winter months when eggs are scarce and prices high. In the early spring and summer, when he is raising his chicks for fall and winter laying, it appears to him an easy matter to regulate matters so as to get his pullets and hens in condition for early laying He makes such arrangements as seem most perfect, his stock is in prime condition, and the food such as would increase the laying qualities of his flock. Oftentimes the secret of making hens lay is regularity in their food and warmth in general. If the henhouse be warm in the early part of the day, it is soon erbalanced should it be cold at night. A regular heat, while expensive in a measure, is very important and essential in the successful managing of hens for eggs.

Very few of our best poultry fanciers are successful in getting their early pullets and hens to lay in the months when the prices are the highest. Perhaps it would seem to the casual admirer of poultry that it would be an easy matter for one to manage his stock so that they would lay during the most desirable months. This, perhaps, would be possible, if the conditions were right. The market for fresh eggs never seems to vary from year to year so greatly as would be supposed.

The Philadelphia and New York markets differ some from the Boston markets, as the prices for choice fresh eggs in New York are generally higher than in Boston or Philadelphia. Philadelphia seems to be able to get a great quantity of egg prod uct from the South. When the New York market is reached, eggs become more scarce, and the fresh-laid egg, which is grabbed by the fancy trade, seems to have become always valuable enough to be sold for its weight in gold or silver. Large demands are made upon the market for hospitals and private families as well, and doctors seem to have prescribed eggs diets more generally lately, consequently the increase in demand is such as to warrant a larger supply.

No farmer or poultry fancier could make a mistake in culling his stock so that it will lay the proper egg for the market, and, if he finds that his hens do not lay in the season, after a very careful study of them when the conditions are right, then it would be well for him to market his stock and start anew another year. A hen can very easily be made to pay two or three hundred per cent. on first cost in the laying season. Very few pullets or hens sell for prices over 40 to 60 cents each, and supposing a pullet to lay two or three dozen eggs in as many months, how soon would this hen pay for itself? It always seems to the writer that the poultry business would be overdone where there are so many exhibitors at our poultry shows and fairs; yet when we visit our markets and consult with the dealers it is surprising to note how few fresh eggs they get compared with the number they need.

ROLAND HOPKINS SMITH.

Poultry and Game

With smaller receipts of poultry last week prices advanced a little on stock arriving in good condition. Fresh killed Northern turkeys are steady at 15 to 17 cents and Western drawn at 11 to 13 cents, but undrawn are from 10 cents for good to 12 cents for prime. Chickens are higher, and fresh killed are 15 to 18 cents for choice to fancy roasters, and 12 to 14 cents for smaller sizes in good condition. Fowls fresh killed 12 to 13 cents. Western chickens, dry packed, from 8 cents for fair and 10 cents for good, up to 12½ cents for choice. Western fowl 10 to 11 cents, Western capons 13 to 15 cents and Philadelphia large 18 to 20 cents. Ducks and geese sell slowly at 8 to 10 cents. Pigeons not plenty yet at $1 to $1.50 a dozen, and few squabs at $2 to $2.50. A lot of choice white might sell higher than quotations. Live fowl in sm demand at 9 to 10 cents, chickens at 7 to 9 cents and roosters 6 cents.

Game higher: grouse at $1.25 to $1.50 a pair for heavy dark and small at 85 cents to $1.10, quail $1 to $1.50 a dozen, canvasback ducks, Maryland birds, at $2 to $3 a pair, or even $3.50 if extra good. Red heads variable in quality. While some sell at 50 cents a pair, others bring $1.50, but most of them $1 to $1.25, mallards and black duck 80 cents to $1, smaller shore ducks 30 to 50 cents a pair. Rabbits abundant and lower at 12 to 15 cents. Jack rabbits scarce now. Dark 40 to 50 cents and clean white 60 to 75 cents. Venison 8 to 10 cents for carcass and 10 to 12 cents for saddles.

The Cultivation of Orchards.

There is a common complaint among farmers that their orchards are dying out because of the intense summer droughts which visit nearly every part of the country once every year or two. Thousands of orchards are rotting away, and in nine cases out of ten this reason will be given as the primary cause. Next to this is the damage done to the trees by the excessive cold of severe winters, especially in the northern belt of States.

Both of these causes are traceable to poor cultivation or lack of cultivation. Trees can stand more drought than grains or any of our vegetables, and it must be a dry season indeed to injure them to any great extent. Consequently if we gave the same cultivation to them as we do to the grain plants, sufficient moisture would be drawn up from the underground reservoirs to keep them in healthy growing condition. Good cultivation means good drainage, and where trees have proper drainage they are not apt to suffer much from winter freezing. There is such a close connection between summer drought and winter freezing that one cannot be considered independent of the other. It is because we have just the soil for freezing the roots of the trees with ice that our trees are injured in winter. If the soil is cultivated in summer, and properly drained, there will be little danger of the trees being badly injured by the coldest weather.

The damage done to the trees by fre zing is due to the excessive moisture that collects in the soil in the fall. The soil is thick and heavy, and the water collects in the soil and cannot escape. Then when cold weather comes the roots of the trees are frozen up in solid cakes of ice. It is this, and the alternate thawing and freezing, that injures the trees of our orchards. The remedy is very plain. By giving perfect drainage to the soil in the fall of the year the surplus water will run off, and when cold weather comes the roots will not be frozen up in ice. Then if a mulch is placed around the trees to keep an even temperature there is little chance of injury being done to our hardy orchard trees.

There are plenty who wrap protecting material around the trunk of the trees, and bandage them up generally like mummies, and entirely neglect the roots. The damage is always done below the ground and not above it. Give a little more attention to the roots, and the winters will do less permanent damage to the trees.

New York. S. W. CHAMBERS

Orchard and Garden.

Prof. John R. Smith in Entomological News tells of testing crude petroleum to destroy the San Jose scale upon fruit trees, with the idea that it was as good an insecticide as kerosene, and not so violent in its action. The first trial was on a row of dwarf pear trees badly infested by the scale. One tree was painted from the base to the tips of the twigs with the crude oil in January. The fruit set normally and a fair crop. There were a few dead spurs on the tree, but other trees no worse infested but not treated died either wholly or in part, and at the time of writing, the pears—Duchess—were ripening normally, and as perfect as any of their kind, while the tree was then one of the most vigorous in the orchard, and the scales were entirely destroyed.

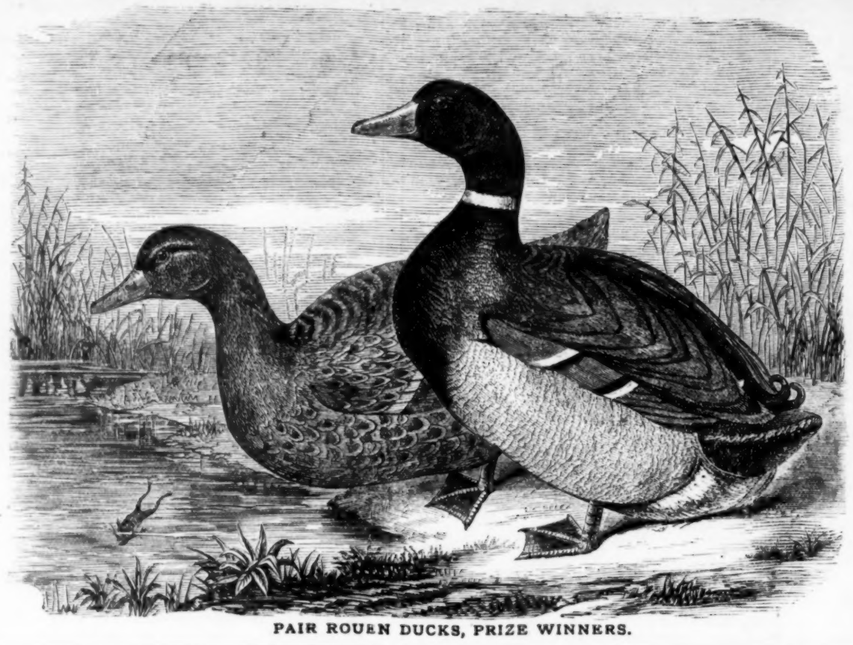
When it was found this tree was not killed a dozen similar trees were sprayed when leaved out and partly in blossom. One side was treated one day, and the other several days after, when the wind had changed. The spraying was very thorough each time, and a few shoots near the centre of each tree were killed, but the rest of the tree developed naturally, and fruit was a that could be desired on Sept. 14. The oil appeared to have a stimulating effect, and the trees from the worst in the orchard have become the best.

An orchard of 200 Ben Davis apple trees eight years set was sprayed from April 14 to 22, and on September 10 was as fully loaded with fruit as any similar trees in the vicinity which had not been treated. He thinks the crude oil is not only less injurious to vegetation than kerosene, but that it spreads more evenly, and is as good an insecticide.

Around Detroit they are forcing rhubarb for winter market by growing it in the dark, either with or without heat. The old roots are plowed up and so trimmed as to pack snugly in a cellar or in pits, and are usually frozen before packing away, though this is not always done. An old hotbed frame from which the manure and soil have been taken out to a depth which allows the stalk to grow to a good length makes a very good pit, and may be used for other purposes after the rhubarb is exhausted.

After the roots are packed in, the frame is covered with two thicknesses of boards, breaking joints to keep out snow and rain, and from a foot to 18 inches of manure placed around it and six inches on the top. The manure may be applied soon after the roots are put in, or later on or at any time from November to March, and when it is put on the forcing begins. In from six to seven weeks afterward the first picking should be ready, or it can be hurried more by adding more manure that is heating in the heap.

The stalks grown in this way have but a very small leaf, and that of a beautiful golden color, as different in appearance from the broad, dark green leaf of that grown under glass as the leaf of the blanched celery which has grown in the pit is from the leaf which developed in the open air. The stalks when pulled are tied in bunches of three, at top and bottom, and these bunches are sold by the dozen, or 36 stalks, at about 75 cents per dozen bunches. One grower reports about ten dozen bunches to a pit of 6x14 feet, or what we should call a five-sash hotbed frame, at the first picking, and the second picking is expected to be larger, with still a third picking at least as good as the first; $7.50 worth from a space of 84 square feet should be called a good crop, and not the least of its advantages are that the labor is done when no other work is pressing and the market is good, while the expense of preparing for it is not large. House and barn cellars, pits which have been used for celery or root crops, or any other place which can be kept dark and warm may be utilized for forcing rhubarb by this method.



PAIR ROUEN DUCKS, PRIZE WINNERS.

Experiments With Potatoes.

Last spring we reported an experiment being made by Mr. W. H. Noyes of East Jefferson, Me., in planting potatoes, which were grown in 1896, and kept through 1897 by being well dried in the fall, then kept in a cool and dark cellar, with another drying in June until they were planted in April, 1898. We are in receipt of another letter from him, in which he says: "They grew well; the potatoes raised from them were large and fine. I think it could be practised successfully on a large quantity in years when potatoes were plenty. It requires a proper temperature, a dark place and ventilation.

"I tried last fall to save some of my potatoes from rot, as the blight or rust struck them in September. I dug one third of them just before the tops were dead, dried them, and put them in the cellar. Not one has rotted yet, and they are as nice as when dug. At the same time I pulled the tops on another third carefully, burned them, and left the potatoes in the ground till November, when they were dry and fresh. Not one has rotted yet. The other third I did not pull the tops or disturb them until November. When I dug them more than one half were decayed. The varieties were Freeman's Early Maine and Aroostook Rose.

The Gypsy Moth.

In national as in family government it is not always easy to exercise a judicious and proper care for those who are subject to its rule, without at some times either placing them under so many restrictions as to seem tyrannically oppressive, or surrounding them with so many safeguards as to cause them to abandon the idea of self help, and to depend upon the governing power too entirely

We recognize the power and most of us can see the propriety of laws to prohibit or to restrict the sale of certain kinds of food and drink if thought to be injurious. We have our liquor laws and our food laws. No one questions the power to legislate against the sale of oleo margarine, though many bought and used it knowingly and were ready to testify to its value to them as a substitute for butter. Many States prohibit the sale of veal not of a certain age, and of horseflesh, though in European countries many claim the meat of the horse to be as palatable, as wholesome and as nutritious a food as beef.

Few grumble at these laws, yet if the Government should issue a bill of fare each week for every family at each meal, though it were to be done under the claim of care for our digestion and our health, it would be thought tyrannical.

It is this difficulty of deciding when the State or nation is doing too much and when it is neglecting its plain duty that has left many of our legislators in doubt about granting an appropriation each year to exterminate the gypsy moth. And some have openly declared against it upon the ground that the State, if it paid for this work, should always pay for exterminating the Colorado beetle, the tent caterpillar, and any other injurious insect pests.

We do not say they should not, but the cases are not parallel. The crops which the Colorado beetle attacks are annual crops. The farmer can grow some crop other than potatoes and tomatoes, or he can grow them and fight the insects. If a part adopt each method, as they certainly have, the one who grows them may find himself repaid for his extra labor and expense by a higher price that results from the other parties failing to compete with him. The smaller acreage planted because of the need of protecting them is the hope of those who do grow them. Even if all farmers should cease to grow them for market for a few years some other food could be substituted for them until the beetle had been starved out by the lack of the plants to feed upon. This method was seriously advocated by some people when the beetle first reached us.

But with the gypsy moth the case is different. Its first objects of attack are our orchards, our shade trees, our forests, which have required years of labor or patience to produce, and which if destroyed would require many more years to replace. The habits of the insect and the difficulty of reaching the places where it feeds and the places where it deposits its eggs render it doubtful if it can be successfully kept under control if the work is left to owners of land. The aged and lame or blind, the mechanic or other person whose duties occupy the hours of daylight, the women and children, are not fitted for hunting the gypsy moth, nor are the means of fighting them as easily procurable by the poor man as is the sprinkling pot of water and the Paris green required to destroy the Colorado beetle.

But this is not all the difference. The gypsy moth would not be starved out if they had eaten the foliage off every tree until they had ceased to put forth green leaves at all, and stood as black stumps for monuments of the inability of man to contend against insect power. There is scarce a field or garden crop, a shrub or plant which they will not feed upon. In their migrations from an isolated knoll whose trees they had colonized and fed upon until there was no longer food for them, they have taken grass and cornfields by the way to supply their appetites as they journeyed on.

Perhaps we may stop short of absolute extermination, and it may be possible to so reduce their numbers that birds and parasitic insects will be able to prevent them from again becoming numerous enough again to threaten the welfare of our orchards and shade trees. This has been the case for years in some sections of Europe where they have been. But even in such places there have been occasionally outbreaks of them which have made it necessary to invoke the aid of the government to suppress them.

Not all seasons do they seem to breed or thrive alike, and in some their enemies seem to hold them well in check, while in other seasons it seems as if they had hatched out and brought up to the feeding age a larva for every one of the thousands of eggs laid by a perfect moth. If we are reducing them it may prove the cheaper way to keep on until they are exterminated.

M. F. AMES.

——The shipments of live stock and dressed beef last week included 2680 cattle, 3807 sheep, 18,344 quarters of beef from Boston; 1680 cattle, 1074 sheep, 11,751 quarters of beef from New York; 1001 cattle, 1500 sheep, 1397 quarters of beef from Baltimore; 199 cattle from Philadelphia; 809 cattle, 783 sheep from Portland and 350 cattle from Newport News, a total from all ports of 6769 cattle, 7164 sheep, 28,492 quarters of beef; 3596 cattle, 6596 sheep, 22,969 quarters of beef went to Liverpool; 1789 cattle, 253 sheep, 3523 quarters of beef to London; 649 cattle to Glasgow; 219 cattle, 159 sheep to Manchester; 290 cattle, 157 sheep to Bristol.

——Fifty vessels are reported as loading for or now on the way to Hawaii, of which 35 fly the United States flag. They are mostly laden with merchandise, and expect to return with cargoes of sugar.

——The Chautauqua and Erie Grape Company shipped last season from Westfield 3363 cars of grapes, containing 8,356,405 eight-pound baskets and 555 784 four pound baskets, paying to growers for them $661 225.50. From Portland 835 cars, which netted to growers $150,586.25. The average price paid here for No. 1 Concords was 6 87 cents per basket; No. 2 about one cent less. The high s price was 11.3 cents a basket, Nov. 9.

——The total exports of manufactured goods from the United States for the month ending Dec. 31, 1898, were $28,283,686, which is a little higher than the best previous record of $28 214,450 in March, 1898. The total of manufactured exports for the year ending Dec. 31 were $307,924 994, or about $28 000,000 more than for the calendar year 1897, and over $54,000,000 more than in 1896.

——The visible supply of grain in the United States and Canada, Feb. 4 included 28,894,000 bushels of wheat, 28,208 000 bushels of corn, 7,538,000 bushels of oats, 1,567 000 bushels of rye and 3 211,000 bushels of barley. As compared with one week ago, this is an increase of 401,000 bushels of wheat, 1,089,000 bushels of corn, 513,000 bushels of oats and 126 000 bushels of rye, with a decrease of 119,000 bushels of barley. One year ago the supply was 36,022,000 bushels of wheat, 39,505,000 bushels of corn, 14,766,000 bushels of oats, 3,599 000 bushels of rye, 2,673,000 bushels of barley.

——The shipments of leather from Boston for the last week amounted in value to $260,076; previous week, $312 039. The total value of exports of leather rom this port since Jan. 1 is $583,478.

——The total shipments of boots and shoes from Boston this week have been 82 415 cases, against 82,770 cases last week. The total shipments thus far in 1899 have been 395,532 cases, against 367,357 cases in 1898.

——The exports from the port of Boston for the week ending Feb. 4, 1899, included 182,879 pounds of butter and 222,380 pounds cheese. For the same week last year the exports included 40,966 pounds butter, 107,393 pounds cheese and 245,350 pounds oleo.

——Trade makes the exports from Atlantic coast to include 445 800 barrels of flour, 2,703,000 bushels of wheat, 3,475,000 bushels corn, 6680 barrels of pork, 15,012,000 pounds of lard, 30 759 boxes of meats.

——Not long ago a very interesting experiment was made in the establishment of a floating cannery, a schooner called the Gracie T. being started from New York for the West Indies and the Gulf ports with a full equipment for canning all sorts of foods. Though a sailing schooner she had on board an eight-horse-power boiler, three 25-gallon copper canldrons, and an enormous cast-iron kettle set into the deck. Six canners and a chef were part of her personnel, and she carried 150,000 empty cans, which were to be filled in Southern climes with turtle, pompano, game and fruits. This is a new idea, and it remains to be seen how it will work.

——All this wintry weather is the result of our having such a pleasant day on the second of February, the old folks say. Probably this year will be long remembered by some as an instance of the truth of the old sayings about Candlemas Day, modern improvements enable us to prevent the snow from blowing in as far as the sun shone in on that day, which is some consolation to us.

——Stockmen in northwestern and western Texas have suffered great losses in their herds by the cold weather. Cattle have died by the thousands. In Moore County the losses of cattle have been particularly severe, and the country west of San Angelo is full of dead sheep.

——A rise of one cent a bushel on the price of corn as a result of familiarizing the people of Europe, Asia and the Far East with Indian corn, will mean an additional income of twenty million dollars to American corn growers

——The market for Western eggs was firm early in the week at 20 cents for best marks, with 19 to 19½ cents for lots slightly affected by frost. Eastern in light supply, and selling at 20 to 22 cents, with a higher range for fancy new laid. Receipts quite moderate, and all were pretty well cleaned up. The stock in cold storage is reduced to 2047 cases, against 225 cases same time last year.

——Of about 4,000,000 bushels of potatoes held in Aroostook County at the beginning of the season, it is estimated that 2,400,000 bushels have been shipped to various parts of the United States, from Bangor to Texas, leaving 1,600,000 bushels now on hand. In Houlton, the price of first-class potatoes on Friday was $1.30 to $1 40 a barrel, and at points north of that section, $1.20 to $1.30.

——An interesting story is told about a Kansas cement mill. For years, near Mulvane, there used to be a large tract of "smoking prairie." It was good grazing ground, but during and after a rain it smoked, and no one knew the cause until a stranger quietly bought the tract one day and announced that he had a fortune. The cement lies on the surface, and in great quantities, and is worth $10 a barrel.

MASSACHUSETTS PLOUGHMAN
NEW ENGLAND JOURNAL OF AGRICULTURE.

BOSTON, MASS., FEBRUARY 18, 1899.

Poor Landor! Now they are saying that he didn't really suffer torture at all during that Thibet journey. It's not clear how anybody can prove this.

According to the unanimous decision of the Massachusetts Supreme Court, theosopy is neither a religious, charitable nor educational institution. It probably would be classed as a Light amusement.

In the appointment of Hon. Samuel Barrows to the office of Congressional Librarian Mr. McKinley has honored a gentleman and a scholar, who is, beside, a man of alert intelligence, a humanitarian with his heart in the right place. Massachusetts may well be proud of this her latest son called to serve his country at Washington.

Boston could ill afford to lose Dr. John Tetlow, who has so long and so efficiently presided over the Girls' High and Latin Schools, but with President Taylor gone from Vassar, this man's eminent fitness for the vacant president's chair could not fail to impress all who know Dr. Tetlow's sterling character, high scholarly attainments and well-proven ability in directing the education of young women. But all the same we cannot spare him.

From Senator George F. Hoar's anti-American speeches on the peace treaty one would be led to suppose the Filipino chief, Aguinaldo, to be a second George Washington in character and patriotism. The fact of his selling out his countrymen, and abandoning his rebel followers for Spanish gold, would rather place him on the plane of Benedict Arnold, open to the contempt of all. American authority must be established in the Philippines regardless of Aguinaldo, who will have no following, except, perhaps, in the United States Senate, after our brave troops have shown the misguided natives the selfishness of their self-appointed leaders.

The Senate ratified the treaty with Spain Feb. 6, by a vote of 57 to 27, one more than the needed two-thirds. But the same day, mainly because of our long delay, the Filipinos made an attack on American outposts at Manila. They were repulsed with so heavy slaughter that Aguinaldo will now see the hopelessness of further fighting and will come to terms. He has been deceived about the sentiment of the American people, and doubtless believed that his attack on Manila would defeat the treaty. Instead it was just what was needed to make its ratification certain. The position of senators who were found aiding in the Senate those who the same day were enemies of our forces in the field cannot now be a very pleasant one.

The Massachusetts Church Union discussed the church's mission Thursday evening, and on this subject some very "churchly" things were said. But Dr. Donald, who has just returned from the South full of health and vigorous ideals, made the speech of the evening, and scored several good points in his own highly pungent fashion. Among them was: "The curses of our church are now the adoration of committees, the exaltation of bustle, and the desire to get ahead in a worldly way. Instead of these things, we should be filled with zeal to acquire a deeper love to God and a fuller submission to His Holy Will. In this way only may we make the church the spiritual refuge of men." How much better this is than pages of talk about "high" and "broad" and "low"!

All horses can easily be taught to like sugar. It is a nutritious food, though fattening rather than strength giving, and when the horses are at work only a little should be given, and that rather as an appetizer than as food. It will cause the horse to have a very shiny coat. When a horse has learned to like sugar he can be easily caught at pasture, for he will grow as fond of sugar as a little child is of sweets. But the condiment should not be given in sufficient quantities to serve as a substitute for more nutritious foods, and it is better to give sugar in cold weather than in summer, because the carbon, which constitutes the whole value of sugar, is soon transmuted into animal warmth by the digestive process. Feeding sugar in hot weather causes horses to sweat easily if at work, and they soon run down and become poor.

United States Consul Wilbour, at Dublin, Ireland, has written a letter which may result in an increase of our exports to that country, and eventually, perhaps, in bringing the farmers there into stronger competition with American farmers in some of our products which we now ship to Great Britain. He says: "Inquiry has recently been made at this office for the addresses of American houses handling superphosphates, guanos, basic slag, bone manures, and other chemical fertilizers. The persons in question wish to deal directly with the American manufacturers, and want especially to know the prices of goods per 100 and per 1000 tons, free on board, at such Irish ports as Ballina, Galway, Sligo and Westport, all of which are on the western coast of Ireland. The manure must be of the best quality, and the prices such as to induce buyers of these goods to purchase. The percentage of phosphates, etc., should be given, and the origin of phosphates should also be stated.

What seemed last week to be a gross piece of impertinence in Gen. Gomez, the insurgent leader in Cuba, in demanding $60,000,000 for himself and men, turns out to be really such demand by the Cuban Assembly. Of course as this is a higher authority than Gen. Gomez he was obliged to adopt its demands. When Gonzales Quesada and Mr. Porter met Gen. Gomez they had little trouble in getting him down from his high horse, and to express his willingness to take one twentieth of this sum to set his army to work. This will give the men a little less than $100 each, and the officers somewhat more, which will be enough with economy to start them in farming in the mild Cuban climate, where nature unassisted provides most of the workers living. The fact that a representative body of men assuming the right to govern Cuba could make so preposterous a claim as was made, the slightest consideration shows how unfitted the Cuban people are at present for self-government. Probably officers of the insurgent army are well represented in the legislature. We may have to keep military government in Cuba a dozen years yet. It will never do to leave the American wealth that is going into the island under control of men who want $60,000 000 now, and whose demands will be more likely to increase than to decrease as the years go by.

Among the popular camp songs in 1863 was one in which was a stanza more true than poetical:

> Tell the traitors all around you.
> That their cruel words, we know,
> In each battle kill our soldiers
> By the aid they give the foe.

Some of the United States senators may be able to imagine General Otis and the soldiers of his command singing that verse today at Manila, in an attempt to make their voices reach across the ocean and land to their friends at home. Murder is an unpleasant word to attach to those whom we have respected, but under the law "killing is murder when done in committing a crime punishable by death, or inciting any other party to commit such a crime," and if inciting and encouraging a mob of ignorant and undisciplined savages to attack and kill United States soldiers at the will of an unprincipled, self-seeking demagogue is not such a crime, we do not know what is. The friends of Aguinaldo in our Senate may not be legally convicted of murder, but they should feel themselves morally responsible for the death of every soldier slain in our battles against his forces.

The sentence of Commissary General Eagan to six years suspension from duty, but without losing his pay for this time, is an extremely light one. But it was made in consideration of his good work during the civil war, and the recommendation of mercy which the court gave in rendering its verdict. It is rather humiliation than punishment. Drawing full pay while getting nothing to do is a position that few active men would care to accept. General Eagan is getting to be an old man. A few days after his six years suspension expires he must retire on account of age disabilities. Then he will have his pay reduced to three-quarters what his rank allows, and this he will receive through life, the same as any officer retired on account of age. This may not have been the result the country expected from the trial, but there is not likely to be any violent protest against it. The truth is the country is tired of this case, and will be glad to give it a rest.

Porto Rico.

Gen. Roy Stone, who visited Porto Rico with General Miles, is confident that the acquisition of that island will be of great advantage to the United States for many reasons. First, from a military point of view; second, as a market for our agricultural and manufactured products. Also as a health resort, of perpetual summer, where throat troubles are almost unknown, and catarrh soon disappears. When proper sanitary conditions are established, as they soon will be under American control, it is likely to prove a desirable winter resort

But the agricultural conditions are the most likely to interest our farmer readers. Its agricultural products will interfere with those of the United States but little. Even its fruits, though identical with some of those grown in the Southern States, ripen at a different season. Oranges are ripe in the island in August and September, before the Florida or California crops have matured.

The sugar crop may prove a good one in the valleys, but there is but little land suitable for it. Tobacco will compete but slightly with ours, as only high grades are grown and not to a large extent. Their tobacco has heretofore been shipped to Cuba and sold as Havana tobacco. Cotton can be grown on the island, but it does not do very well, and is much attacked by insects. Cattle are raised there, but they are poor milkers, and there should be a demand for the importation of American stock and for many years for American butter. Their butter is now imported from Denmark in sealed cans, but American butter is better and should be more largely sold there than any other. Our grains and flour, cotton and hay products also should be largely in demand, as well as many of our manufactured articles.

General Stone thinks the future crop of Porto Rico is destined to be the coffee crop, which grows well there, and the product is among the very highest grades as to quality, equally good as that of Nicaragua and Guatemala.

The roads there are very poor, but he thinks trolley roads will largely take the place of carriage roads, as water power from which to generate electricity is abundant, and the lay of the land is well adapted to the building of such roads.

The people are friendly to Americans, are of mild and pleasant dispositions, and easy and willing to be taught better methods. The chief trouble thus far has been with criminals who were set free from prisons and jails by the Spaniards before they left the island.

Experiments in Socialism.

One of the great dangers to purity of American politics and the preservation of the right of all citizens comes from the rapid development of new forms of socialism to be enforced by State and city governments. This widens the powers of the representative bodies which control taxation and the disbursement of money, and where there is much congested population it places these duties in the hands largely of those who if they do pay taxes are not conscious of the fact, and the money is spent freely for all sorts of purposes, with the idea that as it comes from the wealthy it does not make much difference what is done with it, so long as some good is accomplished for the destitute. There was never a greater mistake than to suppose that the poor pay no taxes. Every man who works is necessarily a taxpayer, even though the tax collector may never call on him for a dollar. He must live, and whatever rent the owner of the house requires must be paid from the labor of whoever occupies the rooms. It is the same with all other taxes except those imposed on incomes. The curious muddle in the public mind on this subject lies in the fact that nearly all wealthy men are agreed in denouncing the income tax as one that is entirely socialistic in its bearings, because it only taxes the surplus of those who have more than they know what to do with.

We have always had some socialistic features in our Federal Constitution, particularly the provision which extends needed mail facilities to the sparsely settled portions of our country. But the importance of the postoffice as the means for diffusing intelligence has always been recognized, and it has reconciled men who theoretically object to all socialistic movements to such expenditures of public money. The same principle is involved in putting down the rates for postage on newspapers, magazines and books which are published at regular dates. This does not really cost the Government money. It is the purely advertisement circulars, published for a few weeks and entered at the postoffice as second-class matter, that are fraud alike on the Government and on the publishers of independent newspapers and magazines. So great is the hold that the advertiser has on the publisher that it is difficult to draw a hard and fast line as to what is and what is not entitled to the low rate of one cent a pound allowed to legitimate newspapers and magazines. Most of the demoralizing dime and half dime novels are now published either weekly or monthly, and are duly "entered as second-class matter."

Education is also so important that socialistic ideas are quite widely and properly adopted in providing it free for all who are unable to secure it without State or city aid. To train the children the fundamental branches is so necessary that for them to attend school certain hours of the day during childhood is made obligatory on the child's parents or guardians. So far socialism has done good for the general diffusion of intelligence, and education is the best means for making patriotic and self-respecting citizens. It is the best guarantee against the extension of socialism in other forms. Comparatively few of those who have been educated in American public schools favor socialist ideas. If they are at times affected by them, an appeal to popular intelligence is all that is needed to set them right.

But in most large cities there are great bodies of citizens who have but little education and have not thought deeply. The plea that they are to be benefited by what only taxes the wealthy pleases their fancy and makes them the easy victims of designing politicians. In Boston during the past 10 years there has been an enormous increase in the debt of the city, which has now reached the limit wisely fixed by the State constitution. Most of this money has been expended for public improvements. But more recently taxpayers have been levied on to enable the city government to do for citizens what they have always heretofore done for themselves. Last year city concerts were given for the encouragement of musical taste among citizens. By such means as these the city debt of Boston has grown so rapidly that taxpayers are reasonably alarmed. Most of these years have witnessed large shrinkages in values, so that even men who have thought themselves well to do have been hard pushed for money. Yet all this time municipal extravagance has gone on at increasing ratio, until suddenly the end comes, for the reason that the limit to which Boston can legally borrow has been nearly reached. New York and other large cities have had the same experience as Boston.

What is the lesson to be learned? The waste of money taken in taxes causes men who pay taxes to grip their money still more tightly. Its expenditure to give the laboring man a great many things free that he was used to paying for before causes him to be less saving than he was before. Why should I try to economize, many a man has said to himself. The city furnishes already much that I need. Why should it not furnish it all? The complaint that during hard times wages have been cut down is almost, if not wholly, due to increasing debt and taxes. The employer finds that with so many things free for all, his working men will not leave the advantages which city residence affords. Hence there is always congestion in the labor market in large cities, and especially in Boston. There are from two to ten applicants for every job, and the man who will do the work for least money gets it. So much is the direct logical result of the experiments in socialism which all our large cities are making.

Building expensive improvements to enhance the value of certain properties is not a remedy for hard times. It gives the laborer one chance to get some money, and then looks it up for a period long enough for its interest to eat up the value of the principal. If the good old rule of free individual competition were restored possibly a few men might make fortunes, but the fact that they could do so would cause them to be free handed with money, instead of closing their fingers on every dollar they secure lest the tax collector shall get hold of it. Whatever men build by private enterprise they take care shall pay its interest. When it cannot pay this it is turned over to the city to build as a valuable improvement.

There is a lesson in the causes of the fall of ancient Rome for Boston and other modern cities. That fall was preceded by like socialistic experiments to those now being repeated here. Games and theatres of all kinds were provided at public expense for the amusement of the populace, nearly all of whom had the right to vote. Demagogues controlled them, and led the city into the most extravagant expenditures. In the meantime, the people, weakened and enervated by being too long panperized, lost their old-time public spirit, and soon became unable to cope with the hordes of barbarians from the north. It was in a great excess of the socialistic spirit that the seeds of Rome's downfall were laid, and that at just the time when that city was seemingly more magnificent and powerful than ever before. Many modern cities may profit by this example, and, as Patrick Henry once said of a bold allusion to King George III., "If that be treason, make the most of it."

There is very little tolerance of the communistic spirit among farmers anywhere. They are plain, honest and hard-working people, who know that they cannot escape being taxed, and who turn their party whenever they find it guilty of extravagance in administration. For this reason it is the farmers of the whole country, rather than the misled working men of cities, who are the best hope for a return to economy in administration and decent politics. The interest of the city working man is really the same as that of the farmer, though it is not so easy for him to see the fact.

Decrease of Horse Stock.

Owing to the falling off in breeding, the horse stock of this country is diminishing quite rapidly. The decrease is general in all localities from Maine to California

In his Report of Industrial and Labor Statistics, issued a short time since, commissioner Matthews makes the following interesting statement concerning the horse stock of Maine.

During the 10 years from 1879 to 1889 the number of horses in Maine increased 14 796 and colts during that time increased 9665. From 1889 to 1893 the year that colts reached the highest number, horses increased 18,710, while colts had increased 3397. For the next three years, or until 1896, horses increased at the average rate of nearly 4000 per year, and since that date only at the rate of 129 per year; while colts since 1893 have rapidly decreased from 29,716 to 9435, a diminution of 20,281 in five years. A like decrease for two years more would cut off entirely our home supply of horses. Have our people decided that it is cheaper to import horses than to raise them? It would seem that the supply of horses must be kept up at some rate, for there is no disposition to substitute oxen in their stead, but rather the reverse.

These figures were surprising to us. We knew that the breeding of horse stock had fallen off greatly, but had no idea that the decrease of Maine-bred colts reached such figures as those given above. It is a good time now for the farmers there who have the right kind of mares to begin to raise such stock as will surely be in demand five years hence. As good roadsters can be raised in Maine as in any locality. Fast trotters can be raised there, too, and when from the right kind of mares these trotters will prove money-winning campaigners. A State in which such trotters as Nelson (2 09), Tomah (2.10), Cephas (2.11¼) and many other good ones that might be named has been grown must be well adapted for raising the best.

The chief drawback in Maine during the past 20 years has been a lack of first-class brood mares. Many have made a practice of selling those that would bring the highest prices, and using the inferior ones to breed from. There are some excellent ones scattered over the State now, but too many are of the medium sort. There is more profit in raising foals from one first-class mare, which is not only well bred but in addition possesses all of the most valuable qualities, than in a dozen of the medium sort. Good stallions have been and still are more plentiful in Maine than first-class brood mares.

Considerable cheap Western work and general-purpose horse stock has been shipped into that State during the past few years. Such stock could be bought at less cost than it could be raised there, but we believe that it would have been better for that section to have kept such animals out of the State. The produce of these Western mares if put to breeding, even when by the best of stallions, will be likely to detract rather than add to the excellent reputation as roadsters which Maine horses have enjoyed for years. It would have been much better for the horse stock of that State had many of the animals sold out of the State been kept there, instead of the cheap ones, which have been sent down from Boston and other localities.

A pair of small, hardy, Maine-bred horses will do as much work as a considerably larger pair raised in the West, and the cost of keeping the Maine-bred ones is considerably less than that of the others. Maine farmers can never expect to compete successfully with the West and Canada in raising cheap horses. They may do so, however, with any section in raising first-class trotters and roadsters, as well as elegant carriage horses and high steppers, if they will select the right kind of brood mares and breed them to the best stallions to be found there. Such mares can do considerable work on the farm, besides raising a colt every year.

Farmers in Maine and elsewhere in the North who are planning to go into the business of raising horses should bear in mind the fact that times have changed greatly within the past eight or ten years. A few years ago farmers could sell their well-bred promising colts at a good price, even though not halter broken, provided they showed a good way of going. They cannot expect to do so in future, and for this reason should breed only as many as they can raise and keep until fully matured, developed and fit for use on the road or track. This, on an average, will be when the animals are five years old.

The large breeding establishments where the best of mares and stallions are kept will have a monopoly of the colt trade. The small breeders, however, who raise but one or two a year, or even one every other year, and keep them until matured, then sell at from $150 to $300 apiece, may occasionally succeed in raising one that when developed can beat most of those raised by the wealthy breeders, but the small breeders cannot afford the expense of training nor the risk of knocking them out.

They should aim to raise sound, good sized, handsome and docile animals, for which there is always a demand even in dull times. If the animals have the speed, the man who buys them is liable to find it out and have them developed. If they prove money winners their breeders will get proper credit, and the stock they raise will then be in better demand and command higher prices than was the case before the winner bred by them came out. Quality instead of quantity is the motto.

Clothes as a Background.

"Have we worked out our democracy in regard to clothes farther than in regard to anything else?" questions Jane Addams in the course of a very interesting paper on "The Subtle Problems of Charity," printed in the current Atlantic. The interrogation voices a vital problem. It has long been recognized that the American shop girl is far better dressed in proportion to her means than is the lady she serves across the counter, and it has been vaguely wondered why and how this should be. Miss Addams throws light on the matter.

The girl who has a definite social standing, who has been to a fashionable school or to a college, whose family live in a house seen and known by all her friends and associates, can afford, this clear-eyed student submits, to be very simple or even shabby as to her clothes. But the working girl, whose family lives in a tenement or moves from one small apartment to another, who has little social standing, and has to make her own place, knows full well how much habit and style of dress have to do with her position. Her income, therefore, goes into her clothing out of all proportion to that which she spends on other things.

But if social advancement be the working girl's aim, to spend money on clothes is the most sensible thing which she can do in the face of present standards. She is judged so largely by her clothes! Her house furnishing, with its pitiful little decorations, her scanty supply of books and her naive shifts for the sake of effect are never seen by the people whose social opinions she most values. Her clothes are her background, and from them she is largely judged.

That the disproportionate expenditure of the poor in the matter of clothes is due to the conviction that here at any rate they may be "as good as the next one," is doubtless the explanation which lies behind the whole matter. Every one, as Miss Addams points out, sees the clothes of the richest woman in town who is out shopping. The girl who earns $10 a week resolves to look quite as well as the rich woman, and often succeeds in making a far more winsome appearance. Nor is it true that taste is invariably lacking in the cheaper imitation of a handsome street gown. The American girl in many instances has an exquisite sense of harmony in the matter of clothes.

Carlyle's remark that "clothes give individuality, distinction," is particularly true nowadays, as it applies to the American working girl, and the college settlement worker, therefore, could not do better than to strenuously insist during a whole season of sermons, if necessary, that friends who are worth having do not care over much about gowns and hats. And if it is true that the people whose opinion a girl values never visit her in her home, it is quite time that they should. Miss Addams admits that in many of the most successful clubs only the "business address" of a working girl is required. This strikes us as particularly pathetic, and it is obviously working from the wrong end.

As soon as a girl gets to feel that her home and her household conditions do matter, and matter much, she will deny herself a new necktie, and buy instead a good Madonna photograph for the family living room. Which purchase would contribute most to the girl's development is quite obvious. If it is true that we have worked out our democracy in regard to clothes farther than in regard to anything else, there is all the more reason why we should now go off on a different tack. Let us make the working girl realize that it is the home which should be every true woman's background.

Food Products of Australia.

The Australians, particularly in New South Wales and Queensland, are said to consume more meat per capita than any other people, averaging more than do the people of the United States, and more than twice as much as the per capita consumption in Great Britian. A reason for this is its cheapness, as beef and mutton cost about one-third as much as in England. Yet at this low price meat and bread at the retail prices represent over 40 per cent. of the expense for food.

Both sections grow much more meat that can be used at home, and New South Wales also grows more wheat than it can consume. They also use much oatmeal and rice, importing rice from China and India.

They are great drinkers of tea and coffee, averaging nine ounces of coffee and eight pounds three ounces of tea for each inhabitant every year. The climate and soil of New South Wales are adapted to growing tea, but no systematic attempt has been made to cultivate it. Coffee also thrives on the north coast, but has not been cultivated for commercial purposes.

They use 9 13 pounds of sugar per head each year, and in 1897 grew 269,068 tons of cane sugar, but they would need to increase production 58 per cent. before it would equal the local demand. It is largely used in making confectionery and spirits, mostly rum

The dairy products of New South Wales have largely increased since 1890, when they had small amounts of butter and cheese to export. The next year they were obliged to import 1,419,400 pounds of butter and 224,397 pounds of cheese for local needs, and exported about the same amounts in 1892. In 1894 they had 4,600,000 pounds of butter and 229,000 pounds of cheese for export. Then came two dry seasons when they had but small quantities to export, but in 1897 the production was 29,409,966 pounds of butter and 3,937,168 pounds of cheese.

Vegetables are generally higher priced than in Great Britain, as their cultivation is mostly in the hands of the Chinese, but a systematic method of market gardening would soon make them abundant and cheap, as both soil and climate are adapted to grow large crops of them.

They are great fruit eaters in New South Wales, and all our American fruits do well there, though they have much trouble from insect pests, and the San Jose scale has done much damage in some sections. Oranges of the best quality are abundant and cheap nearly the entire year, and at times retail at about four cents a dozen. As a rule, food of every description, of the best quality, is more abundant and cheaper in New South Wales than in Europe or America.

Another Trust Company.

It is reported that several wholesale grocery firms in some of the Western States are preparing to consolidate into a sort of trust or combination for purchasing their goods in large amounts and directly from producers or importers. In some cases they will contract for the whole output of canning factories and similar establishments. They say that the gain in this way, and by the discounts usually allowed for prompt cash, will vary from one per cent. on sugar up to twenty per cent. on tea and twenty-five per cent. on spices, but on about twenty of the leading articles in the grocery trade it will average at least seven and a half per cent.

There will be gains by always having goods in carload lots or more, by obtaining lower freight rates. Gain by employing a less number of traveling salesmen and collectors, and perhaps of buyers. A saving by having printing all done at one place, or possibly by having a printing plant of their own, and less bad debts by avoiding the customers who so often find it easier to buy of some other party than to pay for the goods they have had. No firm is to be admitted that has not a half million dollars in capital.

If they succeed in uniting they would undoubtedly make a reduction in cost to themselves of many goods that they handle. If they would also reduce the cost to the consumer even to one-half the percentage saved in buying and in transportation, it would be of advantage to many a poor man, and yet enormously increase their own wealth.

Combination is a powerful factor for good or for evil, as it uses its power. Such an organization could easily crush out many of the smaller concerns whose members are doing business for about laborer's wages, simply because it is easier or more genteel, or they could help the deserving to carry on business more successfully. They could reduce the cost of living for the people, or having a monopoly they could increase it and increase their profits, until some stronger combination should arise to crush them down even as they would crush out weaker competitors.

We may not see it formed, but if we do we shall watch the results with some interest, as its workings will affect every one who has to buy his food. If it proves successful in Western cities it will not be long before there will be similar combinations in other sections of our country.

The New York Legislature is considering a law limiting capital punishment in murder and arson cases to criminals of the male sex. The supposed reason for such a change in the law is probably to keep Mrs Place, a convicted murderess, from going to the electric chair. But the law is plainly ineffective, as it would be if applied to Mrs. Place a clear violation of the Federal constitution al provision forbidding the passage of any ex posto facto laws. Mrs. Place was convicted of murder and sentenced to the punishment which the law at the time fixed for that crime. It is too late for any law enacted now to change the legal penalty of her crime. What the legislators are trying to do is to impress Governor Roosevelt with the idea that there is a strong popular sentiment, as there is, against killing women who are murderers by electrocuting them. The women of New York apparently have no voice in this matter. A woman is to be executed for a crime whose penalty has been fixed by male legislators, chosen exclusively by male voters, and the only relief is to go to another male legislature and ask it to enact a wholly impracticable law, whose real meaning is to arouse sympathy. Why don't New York legislators propose a constitutional amendment giving women of that State full suffrage on the same terms as males? That would probably very soon do away with capital executions in New York State for criminals of either sex.

The 17-year-old trotting sire, Empire Wilkes (2 29½), died on the seventh inst. from colic. He was by George Wilkes; dam, Jane Moseley, by Mambrino Patchen. He is the sire of five trotters and one pacer, which have taken records of 2.30 or better

Boston Exports and Imports.

The total amount of exports from Boston for the week ending Feb. 3 was $2,510,436 and the imports were $862,004. Excess of exports $1,644,432. For the correspondin week last year the exports were $2,130,300, and the imports were $875,645. Excess of exports $1,254,655. Since Jan. 1 the exports have been $14,376,840, and the imports $6 253. 771. Excess of exports $8,117,069. For same five weeks last year the exports were $11,346.-662, and the imports $4,066,010; excess of exports, $7,280,652. Of last week's exports $2,247,266 were sent to England, $27,399 to Nova Scotia and the Provinces, $7257 to Ireland, $13,384 to British possessions in Africa, $1680 to British West Indies, $3350 to Australia and $780 to Malta, a total of $2,301 616 to Great Britain and her colonies; $67,877 was sent to Germany, $25,500 to Denmark, $25,044 to Russia, $33,778 to Belgium, $23,710 to Netherlands, $18 352 to Sweden and Norway, $9876 to Austria, and $4413 to Turkey. The principal articles of export were provisions $976 411, breadstuffs $531,994, live animals $63,516, cotton raw $260 902, cotton manufactured $5568, leather tanned $268,232, iron and manufactures of $27,746, machinery $32,851, agricultural implements $20,541, tallow $18,550, grease $5475, tobacco $15,348, furs $17,274, drugs and chemicals $16,355, paper $11,405, books $3894, brass manufactures $4284, organs $8661, oil cake $8473, fruits $3833, spirits $3679, wood and manufactures of $41,487.

Our Apple Trade.

The total apple shipments to European ports for the week ending Feb. 4, 1899, were 19,424 barrels, including 17,419 barrels to Liverpool, 432 barrels to London, 673 barrels to Glasgow and 900 pounds various. The exports included 4033 barrels from Boston, 4274 barrels from New York, 5534 barrels from Portland, 2155 barrels from Halifax and 3428 barrels from St. John, N. B. The same week last year the apple shipments were 16,761 barrels. The total shipments thus far this season have been 1,013 305 barrels, against 756,349 barrels for the same time last year. The shipments in detail to date have been 196,490 barrels from Boston, 137,995 barrels from New York, 112,095 barrels from Portland, 406,705 barrels from Montreal, 185,852 barrels from Halifax and 34 168 barrels from St. John, N. B.

At Halifax, N. S., it is estimated that there are still 85,000 barrels of apples to send. Those sent have netted the farmers of Annapolis valley from $2.50 to $2.75 a barrel, and if this price is maintained their apple crop will net them about $625,000 for the season, for about 250,000 barrels. This is for the London market alone. Last season they sent to London 77,000 barrels at about the same prices as this season. The previous season was the largest shipments to London ever known, 370,000 barrels, but they netted to the producers less than $1 a barrel. The first Nova Scotia apples sent across the ocean, for exhibition purposes, was in 1862. Later they were exported in I. H. Mathers' deal vessels. Then sailing vessels were loaded for London direct. After this the Anchor Line boats, running fortnightly between Boston and London, took over apples, freights being about $1.25 per barrel. Today the freight is 90 cents. A part of last year it was 90 cents, but dropped to 80.

Butter Market Firmer.

Butter is higher in the West, and in fact in all important markets. This is specially noticeable in the choice grades. While Elgin quotes choice butter 1½ cents higher than last week, New York one-half cent to a cent, Chicago one cent, St. Albans one cent, yet such grades in Boston have only advanced half a cent. The export demand has been the principal source of strength to the market. It took off the accumulations which had been clogging up the channels of trade for some time previous, and has left the way clear for the fresh receipts, which luckily have been comparatively light for a week or two past.

The receipts of butter at Boston for the week were 13,938 tubs and 17,283 boxes, a total weight of 652 249 pounds, including 70,807 pounds for export, leaving 581,449 pounds for local trade, against 590,590 pounds the previous week and 576,556 pounds the corresponding week last year. For the past two days receipts run light as compared with last year.

The exports of butter from Boston for the week amounted to 182,879 pounds, against 40,966 pounds corresponding week last year. The exports from New York for the week were 16,660 tubs. From Montreal, by way of Portland and St. John, N. B., the the exports were 1849 packages.

The statement of the Quincy Market Cold Storage Company for the week shows that 1215 tubs were put in and 5998 tubs taken out, leaving a stock of 36,075 tubs, against 32,353 tubs same time last year. The Eastern Company holds 5013 tubs, and with this added, the total stock here is 41,089 tubs, an increase of 8736 tubs as compared with last year.

Boston Cooking School.

All ingredients in the following recipes should be measured level.

The lesson given at the Cooking School Wednesday morning, Feb. 15, by Miss Farmer and her assistants, was for the purpose of illustrating a dinner given for six guests. The menu was as follows:

Oysters on the half shell
Consomme d'Orleans
Smelts a la meuniere
Cucumbers
Broiled fillets of beef, sauce Trianon
Croquettes of sweet potatoes
French string beans
Mushrooms under glass
Birds en casserole
Escarole salad
Praline ice cream Fancy cakes
Cafe noir Crackers Cheese

A dinner is usually served nowadays in individual portions, thus obviating all carving at the table. Dark and light courses generally alternate in the serving of a dinner. Cucumbers are served with the fish course in this menu, but tomatoes may be substituted. As the different courses preceding the salad are quite hearty, this course should be a light one, escarole with a French dressing, lettuce or something similar being appropriate. Frequently the salad is served with the game course, but is better served separately in this instance, as the game course is rather heavier than is sometimes the case. The recipe for the mushrooms under glass was given in a former lesson, and will not need to be repeated in this issue. The cafe noir is generally a filtered coffee, the coffee being finely ground for the purpose. Twice the strength of breakfast coffee is the rule, and it is, of course, served clear.

CONSOMME D'ORLEANS.—Cut three pounds of beef from the poorer part of the round into cubes; brown half of it in a little marrow. To the remainder add three pounds knuckle of veal cut in pieces, one pound marrow bone, three quarts of cold water and the browned meat. Let stand half an hour, heat slowly to the boiling point and cook gently three hours. Add one quart of liquor in which a fowl has been cooked and simmer two hours. Cook a third of a cupful each of carrot, turnip, onion and celery in two tablespoonfuls of butter five minutes, then add to the soup, with one tablespoonful of salt, four cloves, three sprigs of thyme, one sprig of marjoram, two sprigs of parsley and half a bay leaf. Cook one and a half hours, strain, cool quickly, remove the fat and clear, allowing the white and shell of one egg for each quart of stock. The process of clearing the soup has been explained fully in the reports of other lessons, and will not need to be repeated. The soup was served with red and white quenelles and peas. The peas should be removed from the can and thoroughly scalded or cooked for a short time in boiling water to remove any trace of a tinny flavor. If wine is used to flavor the consomme, it should be put into the soup tureen, and the hot soup poured over it, so that none of the flavor is wasted.

QUENELLES.—Chop very finely half the breast of a raw chicken, rub through a sieve and pound in a mortar, adding gradually the white of one egg, and season to taste with salt and pepper. Add slowly medium heavy cream until of proper consistency to shape. Color a small portion red, shape into fancy forms with a pastry bag and tube, or use paper folded into cornucopia shape for this purpose. Shape the quenelles on buttered paper, then invert in a shallow pan of boiling, salted water. The quenelles will quickly drop from the paper, and should cook for two minutes. Serve as a garnish for the consomme, the white and red quenelles with the green peas giving a pretty contrast.

SMELTS A LA MEUNIERE.—Any small fish may be served in this way or small fillets of halibut. It is a particularly good way to serve large, selected smelts. Clean six selected smelts, removing any loose scales, then gash several times on each side. Season well with salt and pepper, rubbing them well in. Season also with lemon juice and let stand ten minutes. Roll in cream, dip in flour so as to give a liberal coating, then fry in butter. For the sauce for the fish there should be left two tablespoonfuls of butter in the pan. Add to this two tablespoonfuls of flour, one cupful of stock, and one and one-third teaspoonfuls of anchovy essence. At the last add lemon juice to taste and one and a half tablespoonfuls of butter. Just before pouring the sauce around the smelts, strain and add one teaspoonful of finely chopped parsley.

BROILED FILLETS OF BEEF.—The short fillet, or tenderloin, may be purchased for about thirty cents a pound at this time. Wipe small fillets and cut into outlet shape or rounds of suitable size for individual serving. Broil over a clear fire five minutes. Remove from the broiler to a hot platter and serve on each fillet sauce Trianon.

SAUCE TRIANON.—Wash half a cup of butter as directed in the report of the lecture on puff paste. Divide into three parts, and put one piece in a saucepan with the yolks of two eggs. Place over boiling water and stir briskly with a wire whisk. Add the second piece of butter, and, as it thickens, the third piece. While cooking, add gradually one and a half tablespoonfuls of sherry wine.

CROQUETTES OF SWEET POTATOES.—To two cupfuls of hot sweet potatoes put through a ricer, add three tablespoonfuls of butter, and season with salt and paprika to taste. Then add one beaten egg, sherry wine, and if necessary, hot milk or cream to moisten, or omit the sherry and use more cream. Shape, using a rounding tablespoonful for each croquette, shaping first in a ball, then in a small flat cake, dip in crumbs, cover thoroughly with egg, and again crumb, fry in deep fat and drain. Arrange the croquettes around a bunch of parsley, and put the cutlets about the croquettes.

BIRDS EN CASSEROLE.—Clean, singe and truss six small birds, quails being served at the Cooking School. The feet and wings should be removed, and a small, wooden skewer (toothpick) put through under the second joints, another fastening the ends of the legs together and close to the body. Season with salt and pepper, rubbing them into the birds, brush over with melted butter, and bake fifteen minutes. Cut six thin slices of bacon into strips, and fry with one tablespoonful of finely chopped onion and two-thirds of a cup of carrots which have been cut in strips and parboiled in boiling salted water. Add two-thirds of a cup of thin brown sauce, one cup of potato balls which have been cut with a French potato cutter, and the birds. Add four tablespoons of sherry wine, with salt and pepper. Cook in a slow oven twenty or thirty minutes, according to the size of the birds. The dish takes its name from the casserole in which they are cooked, the casserole being a round earthenware dish with a handle. The birds are slowly cooked in these dishes, the result being a rich flavor.

PRALINE ICE CREAM.—Roast one cupful of Jordan almonds which have been blanched and cut in pieces. Scald two cupfuls of cream, let cool a little, add two-thirds of a cupful of caramelized sugar, and as soon as the sugar is melted add the almonds finely chopped, two-thirds of a cup of sugar, quarter of a teaspoon of salt and one quart of cream. Flavor with one teaspoon of vanilla. Freeze, using three parts of finely crushed ice to one part rock salt. The result was delicious.

Owing to the fact that next Wednesday is a legal holiday, the next lesson will be postponed to Friday, Feb. 24, the subject being the preparation of a ladies' luncheon for twelve guests, the cost of the materials to be $5. Miss Farmer promises a menu, the expense of which will be but $4 leaving $1 for flowers and incidental expenses. The lesson will be given Friday morning, Feb. 24, at the rooms of the Cooking School, 372 Boylston street, beginning at ten o'clock. Single admission, 50 cents. We shall be unable to give the report of the lesson until the issue of the week following

MARKETS.

BOSTON LIVE STOCK MARKET.

Week ending Feb. 15, 1899.

Amount of Stock at Market.

	Cattle.	Sheep.	Shotes	Hogs	Veals
This week,	2,6 9	9038		31,3*2	709
Last week,	3,467	6,311		33,761	1,159

Values on Northern Cattle, etc.

Beef.—Per hundred pounds on total weight of hide, tallow and meat, extra, $6 00@6 75; first quality, $5 50@5 75; second quality, $5 00@5 25; third quality, $4 00@4 75; a few choice single pairs, $7 00@8 00; some of the poorest, bulls, etc., $3 00@3 75.

Cows and Young Calves.—Fair quality, $20@38; extra, $40@48; fancy milch cows, $50@65; farrow and dry, $12@25.

Stores.—Thin young cattle for farmers: yearlings, $10@20; two-year-olds, $14@30; three-year-olds, $22@40.

Sheep.—Per pound, live weight, 2½@3c; extra 3¼@4¼c; sheep and lambs per head, in lots $2.50@4 75; lambs, 4½@5½c.

Fat Hogs.—Per pound 3⅞@4¼c, live weight; shotes, wholesale ...; retail, $1 00@5 50; country dressed hogs, 4¾c.

Veal Calves.—3@6½c ℔ lb.

Hides.—Brighton, 7¾@8c ℔ lb; country lots, 7@7½c.

Calf Skins.—70c@$1.45. Dairy skins, 30@40c.

Tallow.—Brighton, 3@3½c ℔ lb; country lots, 1½c.

Pelts.—50@65c each; country lots, 25@50c.

ARRIVALS AT THE DIFFERENT YARDS.

	Cattle.	Sheep.	Hogs.	Veals.	Horses.
Brighton...	1789	75	16,375	282	70
Watertown,	830	8963	15,007	427	175

Cattle. Sheep.		Cattle. Sheep.	
Maine. At Brighton.		**Massachusetts. At Watertown.**	
As near as we can learn, estimated to arrive	160 75	J S Henry, W A Bardwell, O H Forbush	30 100
		At Brighton	
New Hampshire. At Brighton.	28	J S Henry, R Connors, Scattering, H A Gilmore	140
At Watertown		**Western At Brighton.**	
Arrivals estimated at	92 70	J White & Co.	17
Vermont. At Watertown.		Morris Beef Co.	901
Estimated to arrive	75 400	Swift & Co.	459
		S S Learned	34
Canada At Watertown		Sturtevant & Haley	50
J Gould	80	**At Watertown.**	
J A Hathaway	143 1800	W W Brouer	833
		G A Sawyer	64
		Western	50 4800
		J A Hathaway	296 960

Export Traffic.

The latest advices from Liverpool by cable were to the effect that State cattle were in large supply and the trade cull at ¼@½c decline. The cattle all came in by the arrival of a large number of steamers loaded down at one time but with the storms at sea, the outlook is a sudden advance at any time. Shipments this week are 2000 cattle, 3593 sheep and 86 horses for the week. Prices at Liverpool 11½@12c, sinking the offal, and at London 1 ½@12¼c.

Shipments and destinations: On steamer Columbian, for London, 46 horses; on steamer Irishman, for Liverpool, 509 cattle by Morris Beef Company; on steamer Kansas, for Liverpool, 144 cattle by Morris Beef Company, 61 State cattle by J. A. Hathaway, 80 Canada by J. Gould, 833 sheep by W. W. Brouer; on steamer Cestrian, for Liverpool 511 cattle by Swift & Co.; on steamer Bay State, for Liverpool, 417 cattle by Morris Beef Company, 135 State and 143 Canada cattle and 960 State and 1800 Canada sheep by J. A. Hathaway.

Horse Business.

This has been a hard week for horse dealers, and it was fortunate that the arrivals from the West were light, as it was not the kind of a week to show the stock. What did find sale went at about steady prices. At Snow's combination sale stable a light run of stock; a few sales within the range of $60@150. At L. H. Brockway's sale stable four Western shippers managed to dispose of their stock, and seemed to have more arrivals than the other stables; sales from $60@200; sold 13 head on Tuesday at private sale, sold a 3000 lb pair at $3 0. At A. W. Davis's Northampton-street sale stable sales were somewhat limited, buyers were not numerous; some disposals of speed, coach, family horses at $100@400. At E. Ham & Co.'s sale stable a few draught horses were sold at $100@200. At Welch & Hall's a slim trade and arrivals.

Union Yards, Watertown.

Tuesday, Feb. 14, 1899.

The big storm of the season, and as a matter of course live stock trains blocked, and the New England trains somewhere between Watertown yards and their starting point. Having heard nothing of their whereabouts, we are in the dark when they will arrive. There have been arrivals of Western cattle during the week and some from Canada; also one load of cattle from Brattleboro, Vt. The Western were for export, and some also for home trade that cost steady prices at a range of 5@6¼c, as sold live weight. J. A. Hathaway sold 15 steers, of 1550 lbs, at 6¼c; 15 of 1525 lbs at 6c; 20 of 1500 lbs at 5¾c; 15 of 1475 lbs at 5½c; 20 of 1425 lbs at 5¼c; 15 of 1400 lbs at 5c.

Sheep Houses.

There were 24 carloads of Western that have put in an appearance during the past seven days, which would aggregate 4800 head, besides 1800 head of Canada sheep. Beyond these we might count on 800 more on late trains when they do arrive. The Western are held at steady prices. Lambs at 5@5½c. Sheep are near 4½c laid down here. The calf market at the present writing is a matter of uncertainty, as these all come from the North, but they will eventually fall into the hands of butchers and the bulk killed by Wednesday night. A fair quotation on calves is 5@6½c ℔ lb.

Veal Calves.

Considering the arrivals last week, the demand for this week was not elaborate, and whatever the arrivals before tomorrow night, we do not anticipate any prices over 6¾c, and from that rate down to 5¾c for veals; young calves, 3½@5c.

As far as we can learn the arrivals of cattle for the week will sum up 1789 head, of which 1461 head were from the West. The country trains had not been heard from, but were supposed to be light of live stock. We can report the movement in cattle strong at last week's figures and what were offered were easily captured by the butchers, and what were fat went at stiff prices. Such cattle as came from the West cost butchers from 5@6¼c as sold l. w. Several city butchers had cattle come through direct from the West.

Milch Cows.

None arrived.

Fat Hogs.

Rule steady as previously quoted.

Live Poultry.

1200 lbs at 10c ℔ lb.

Brighton, Tuesday and Wednesday.

Feb. 14 and 15, 1899.

Stock at yards: 1789 cattle 75 sheep, 16,375 hogs, 282 calves 70 horses. From West 1461 cattle, 16,300 hogs, 70 horses. From Maine, 160 cattle 75 sheep, 200 calves. New Hampshire, 28 cattle, 7 calves. Massachusetts, 140 cattle, 75 hogs, 75 calves.

Late Arrivals and Sales.

The New England trains of live stock included 14 loads over Eastern Railroad, 9 over the Lowell Railroad and 7 over the Fitchburg Railroad, separate from the Western. The business at the yards today was of a limited order, there not being many buyers present, and the purchasers were light, especially in milch cows. There were a number of sales of beef cattle notice at firm prices. H. N. Jenne had in a fancy pair of 3500 lb steers that shrank 400 lbs on the way to market at 6c, l. w. O. H. Forbush had 12 head, and sold 3 cows, of 3030 lbs, at 3¾c; 2 cows of 2610 lbs, at 4¼c; 3 cows, of 1150 lbs, at 3@3½c. R. W. Foss & Son, 9 cows and 2 bulls, av. 1000 lbs at 4c. W. F. Wallace, 4 beef cows, 900 lbs, at 3@3½c.

Milch Cows.

The total of the week would not probably reach 400 head, it being a bad week to move cows. There were some milch cows left over from last week not sold, offered and disposed of at a range of $20@38 for common cows, $40@50 for extra grade cows and for fancy cows $55@65.

Store Pigs.

None at market.

Boston Produce Market.

Wholesale Prices.

Poultry.

Fresh Killed.

Northern and Eastern—	
Chickens, choice large, ℔ lb	15@16
Chickens, common to good	10@14
Fowls, extra choice	12@13
Fowls, common to good	8@10
Geese, per lb	8@10
Ducks, spring ℔ lb	8@10
Pigeons, tame ℔ doz	1 00@1 50
Western dry packed—	
Turkeys, choice drawn	13@
Turkeys, common to good	10@12½
Chickens, choice	12@
Chickens, com. to good	9@11
Fowls, good to choice	10½@11
Ducks, good to choice	6@8
Geese, good to choice	8@9
Old Cocks	7@

Live Poultry.

Fowls ℔ lb	10@11
Roosters ℔ lb	6@
Spring Chickens ℔ lb	8@10

Game.

Grouse, ℔ pair	85@1 25
Quail good to choice, ℔ doz	1 50@1 75
Venison, fresh saddles, ℔ lb	10@12
Rabbits ℔ pair	18@22
Jack-Rabbits ℔ pair	40@75

Butter.

NOTE.—Assorted sizes quoted below include 20, 30, 50 lb. tubs only.

Creamery, extra—	
Vt. & N. H. assorted sizes	23@
Northern N. Y., assorted sizes	@
Northern N. Y., large tubs	@
Western, asst. spruce tubs	23@
Western, large ash tubs	22@23
Creamery, northern firsts	20@21
Creamery, western firsts	19@21
Creamery, seconds	16@18
Creamery, eastern	19@21
Creamery, western June firsts	16@18
Dairy, Vt. extra	17@18
Dairy N. Y. extra	17@
Dairy, N. Y. and Vt. firsts	15@16
Dairy N. Y. and Vt. seconds	14@
Dairy, N. Y. and Vt. low grades	13@
Dairy, western	13@14
West. imitation creamery, small tubs, extra	16@
West imitation cr'y. large tubs firsts	15@
" imitation creamery seconds	13@14
" ladle firsts and extras	13½@15
" ladle seconds	13@
Boxes	
Extra northern creamery	23@
Extra western creamery	23@
Extra dairy	19@
Common to good	16@18
Trunk butter in ½ or ¼ lb prints	
Extra northern creamery	23@
Extra northern dairy	18@19
Common to good	16@17
Extra western creamery	23@

Cheese.

Liverpool quot. white 49s.	
New York, small, extra ℔ lb	11¼@
" " first ℔ lb	10@10½
" " large extra ℔ lb	11@
Vermont, large extra, ℔ lb	11@
" small extra ℔ lb	11@11¼
" firsts ℔ lb	10@10½
" seconds ℔ lb	7@ 9
Part skims ℔ lb	@
Western twins, extra	11@
Sage cheese, extra, ℔ lb	11@11½

Eggs.

Nearby and Cape fancy ℔ doz	30@32
Eastern choice fresh	30@
Eastern fair to good	25@28
Vt. and N.H. choice fresh	30@
Western fair to good	24@27
Western selected, fresh	29@30
Southern, fresh gathered	29@
Refrigerators	@

Potatoes

Aroostook Co. Rose, extra	70@73
Aroostook Co. Hebrons	60@62
Aroostook Green Mountain	70@
York State, Green Mountains	50@
York State, Burbanks	45@
Western Green Mountains	45@50

Sweet Potatoes.

Jersey extra double head ℔ bbl	1 75@2 25

Green Vegetables.

Beets native ℔ bushel	40@50
Cabbage ℔ bbl	1 50@
Carrots ℔ bu	40@50
Cress, ℔ bunch	04@05
Celery ℔ doz	1 45@2 25
Lettuce, hothouse ℔ doz	50@60
Onions, native yellow ℔ bbl	2 00@2 25
Onions, yellow, in bulk ℔ bush	70@90
Parsnips ℔ bu	75@90
Parsley, ℔ bu	4 00@
Radishes, ℔ doz	30@38
String beans—	
Common green southern ℔ crate	2 50@3 00
Squash, native marrow, ℔ bbl	65@
Squash, Bay State and Turban ℔ bbl	75@
Squash, Hubbard, ℔ ton	8 00@12 00
Spinach, Baltimore, ℔ bbl	2 00@2 50
Turnips, Russia, ℔ bbl	1 50@
Turnips, yellow ℔ bbl	80@1 00
Turnips, St. Andrews, ℔ bbl	65@75
Tomatoes, hot house, ℔ lb	60@65

Domestic Green Fruit.

Apples—	
No. 2 Apples ℔ bbl	1 75@2 25
Spy ℔ bbl	2 50@3 50
Talman Sweet ℔ bbl	2 00@3 00
Baldwins No. 1 ℔ bbl	2 75@3 25
King, ℔ bbl	3 50@4 00
Greenings No. 1 ℔ bbl	2 75@3 25
Cranberries—	
Cape Cod, choice dark ℔ bbl	6 50@7 00
Cape Cod, com. to good ℔ bbl	5 00@6 00
Cape Cod, com. to good ℔ box	1 75@2 00
Country, good to choice ℔ bbl	5 00@5 50

Nuts.

Peanuts, Va., H. P. No 1 ℔ lb	3¾@4
Peanuts, Va. No. 2 ℔ lb	3@3¼

Tallow.

Rough, ℔ lb	1½@2
Rendered	3@3¼

Honey.

York State—	
Clover, comb, fancy ℔ lb	13@
Clover, comb, fair to good ℔ lb	11@12

Hides and Pelts.

Steers and cows all weights	7@
Bulls	6@
Hides, south. light green salted	8¼@8½
" " dry-flint	15@15½
" " " salted	14@14½
" buff, in west	9⅜@9¾
Calfskins, 5 to 12 lbs each	65@1 40
" overweights, each	1 50@
" south, flint dried ℔ lb	11@12
" " salted ℔ lb	9@10
Deacon and dairy skins	30@40
Shearlings each	10@15
Lambskins each spring	25@40
Pelts, each	50@70

Peas.

Choice Canadian ℔ bu	1 05@1 10
Common " "	90@1 00
Green peas, Western choice	1 05@
Green peas, Scotch	1 10@

Dried Apples.

Evaporated, fancy to extra fancy	10@11
Evaporated, choice	9¼@9¾
Evaporated, prime	8½@9

Grass Seeds.

Timothy, ℔ bu	1 40@1 85
Clover, ℔ lb	6½@9
Red Top, western, ℔ 50 lb sack	2 00@2 25
" fancy recleaned, ℔ lb	9@10

Beans.

Pea, N.Y. & Vt. small H. P.	1 50@
Pea, marrow, choice, H. P.	1 25@1 30
Pea, screened	1 10@1 20
Pea, seconds	90@1 00
Mediums, choice hand picked	1 30@1 35
Mediums, screened	1 10@1 20
Mediums, second	1 00@
Yellow eyes, extra	1 50@
Yellow eyes seconds	1 20@1 40
Red Kidney	1 75@1 85
Lima beans, dried ℔ lb	4@

Hay and Straw.

Hay, prime, large bales	12 00@13 00
" " small "	11 50@12 00
" No. 1, ℔ ton	10 50@11 50
" " 2 "	9 00@10 00
" " 3 "	6 00@ 7 00
" fine choice	8 00@ 9 00
" rejected, per ton	5 00@ 6 00
" clover mixed, ℔ ton	8 00@10 00
" clover, ℔ ton	7 00@ 8 00
" swale, ℔ ton	6 50@ 7 00
Straw prime new rye	8 00@ 8 50
Straw prime old rye	8 00@
Straw, oat per ton	6 50@ 7 00
Straw tangled rye	7 00@

Flour and Grain.

Flour.—The market quoted steady.
Spring patents, $4 10@4 75.
Spring, clear and straight, $3 10@3 75.
Winter patents, $4 00@4 40.
Winter, clear and straight, $3 40@4 00.

Oat Meal.—Quoted quiet, $3 60@4 00 ℔ bbl for ground and rolled, and $4 00@4 30 for cut.

Corn Meal.—The market is quiet at 88@90c ℔ bag, and $1 95@2 00 ℔ bbl; granulated, $2 20@2 30 ℔ bbl; bolted, $2 20@2 35.

Graham Flour.—Trade continues quiet, with the market quoted at $2 20@2 30 ℔ bbl.

Rye Flour.—The market is quoted at $3 20@3 50 ℔ bbl.

Corn.—Demand is quiet with market steady.
No 2 yellow, spot, 46½c.
Steamer yellow, new, 44c.
Steamer and No 3 corn, 44@44½c.
No. 2 yellow, 40c.
No. 3 yellow 43¾c.

Oats.—Quiet but steady.
Clipped, fancy, spot, 40c.
No. 2 clipped, white, 38½@39c.
No. 3 clipped, white, 38@38½c.
Lower grades, spot, 37½@38c.
Clipped, to ship, 39½@40c.
Clipped white, old, 38½@39¼c.

Millfeed.—The market is firm for all kinds.
Middlings, sacked, $15 50@18 50.
Bran, spring, $16 00@16 50.
Bran, winter, $16 75.
Red Dog, $17 50@18 00.
Mixed feed, $16 75@18 50.
Linseed meal, $26 00.
Cottonseed meal to ship, $22 25.

Malt.—The market is steady with trade ruling dull.
State grades, 6-rowed, 58@63c.
State, 2 rowed, 53@55c.
Western grades, 53@60c.

Barley—Quiet demand, with prices nominal at 50@75c for No. 2 6-rowed State, and 42@50c for No. 2 2-rowed State.

Rye.—Quiet at 66@68c.

The Wool Market.

Unwashed fleece, fine, Michigan	16@17
" " " Ohio	18@19
" " ¼-blood "	22@
" " ⅜-blood "	23@23½
" " ½-blood "	22@
Fine delaine, Ohio	28½@29
" " Michigan	26@27
Washed fleece	27@30

CROP-BOUND FOWLS.—S. M. R., Norway, Me.: Your sick hen is, from your description, crop bound, a result of overfeeding, especially on corn. When a hen becomes crop bound she does not know what is the matter with her, and for some time she will continue to eat, piling up more fat, when she should be reduced to the smallest allowance, if fed at all. We have little faith in any attempt to aid the hen's digestion. If her gizzard can be set to working at all, whatever is the matter with it will soon remedy itself. Without knowing any reason for it we used to practise feeding fowls in this condition some well-scorched grain. At first we used scorched corn, afterwards oats, but later experience satisfied us that scorching wheat until half of it was blackened was the best feed of all. Doubtless this scorching set free some of the potash in the grain, and this coming in contact with the gases liberated by food fermenting in the fowl neutralized them, and thus reduced the pressure on the gizzard, so that it could get to work again. The natural effect of the potash in the stomach would be to make it weaker. But a hen's gizzard is in little danger of becoming too weak. It is far more liable to injury by being covered with fat, and so overloaded that it cannot work. Hence to feed a little scorched grain to fowls occasionally is a good practice. It should be fed warm in cold weather, taking care, of course, that none shall be so hot as to burn them. A large grain of corn keeps its heat a considerable time after it has been removed from the fire. We have known parched corn to be fed to fowls when too hot.

FROZEN MEAT.

Fresh meat may, as all farmers know, be kept a long time if thoroughly frozen. It should, however, be hung in pure, cold air until a thaw comes, when it should be at once cooked or salted. Freezing the meat has opened its pores to air, and so soon as this begins to be tainted putrefaction soon sets in. Hence the pork that has once frozen through is harder to keep than that which was packed when only the animal heat was out of it.

FEEDING SMUTTY CORN.

Whenever you come to a smutty ear of corn put it in the fire. This should have been done at husking time, but some smut may have been overlooked then and developed since. If all farmers would stamp out the corn smut wherever found the disease could soon be eradicated. Feeding it to either cows or hogs as is often done is the readiest way to send it to the manure pile, where it will propagate very rapidly. Besides, it is a serious danger to the animals to which it is fed, especially if they are bearing young.

BEAN STRAW FOR FEEDING COWS.

While the sheep take naturally to bean straw and to the grain itself, there are many who grow beans who do not keep sheep. With a little care in giving only small amounts at first, and when the cow is hungry, she will eat bean straw and soon come to like it for a change, as well as the hay or corn stalks which are her regular diet. Bean straw is very nutritious, and as it causes wind on the stomach, it should be given with caution to breeding stock, either ewes or cows, lest it should cause abortion. The refuse beans that are often thrown away may properly be ground and mixed with corn meal as fed for hogs. They are very nutritious, more so than corn.

SAP INJURING SHEEP.

Sheep are exceedingly fond of the sweet of the maple, and if allowed where trees are tapped they will drink it to excess. One of its effects is to make the sheep stagger, or as people say, "become drunk." This, however, is a misnomer, for in the maple sap while it remains sweet there is no intoxicating quality. The real effect of the sap is to weaken the sheep. So much liquid causes the sheep to urinate enormously, and it also prevents the animal from eating as much nourishing food as it requires. It has been said that sheep advanced in pregnancy will abort if they get at the sap troughs. This may come from making them too weak, so that they lie on the cold ground and are chilled. After a chill, then, of course, a fever naturally follows, and both the sheep and its unborn lamb are lost.

THE COLOR OF FRUITS

Is there any difference other than variety for the greater degree of acid in some fruits than there is in others. Mr. L. J. Farmer is promulgating a theory that there is, and he advances the opinion that the very sweetest fruits are always light colored. He instances the white Dutch and white grape currants, which, in his experience, are sweeter than any of the high colored varieties. But he forgets to apply this rule to apples. There are a number of red apples, the Jersey Sweeting, for example, that are sweeter than any yellow or green-colored apples we know. And the higher colored the Jersey Sweeting the sweeter it is. Reasoning from too few facts seems to be the trouble with the farmer's theory. We doubt if any hard and fast rule can be drawn, but if it can be, it is more likely to favor the highest-colored fruit as sweetest, and usually is also the ripest.

PLOWING GROUND WHILE FROZEN.

It is sometimes possible to do a little plowing when there is a thin stratum of frozen earth near the surface. If the plow can enter the soil, its lifting motion will break this thin crust of frozen earth, and the coulter or cutter will divide it so that it can be turned about as easily as if it had not frozen at all. This work is best done in the fall, just before freezing up, in which case there will be two stratas of frozen earth, each separated by air. In such case, there is an admirable till produced down to the bottom of the furrow. But unless such land has a good supply of underdrains to carry away water beneath the surface, the farmer will find little advantage from plowing frozen ground, or, in fact, from any kind of fall plowing. Whenever a furrow is frozen throughout the winter, it becomes so expanded that spring rains will soon turn it into a mud heap, unless the water can get away beneath the surface.

DISPOSE OF SURPLUS HOGS.

All the hogs, except those required for breeding, should be fattened and killed in the fall. It will keep cheaper in the barrel than on the hoof. The room allowed for hogs ought at all seasons to be given to those that the most profit can be made from. A farmer cannot afford to keep hogs around his place that are merely paying their board. As they grow older they will probably fail to do even this. In wintering a hog it is pretty sure to get some setback from cold or lack of food when needed that interferes with its profitableness ever after. This is the reason why we so often advise extra care to be given to breeding sows during winter. If well cared for, they will grow better for dams for several years. We don't know how old a breeding sow might be kept with profit. We kept some until they grew so breachy and unmanageable that it was impossible to tolerate them any longer. They learned to open gates and could go where they pleased just the same as a person. Yet the last litters those sows raised were large and without a runt. We kept all the sows of these litters for breeding.

COAL ASHES AS ABSORBENTS.

Coal ashes have in themselves very little manurial value. This does not, however, deny the many and true reports of extraordinary growth obtained from seeds that have been accidentally or intentionally planted in coal ash heaps. It will always be found on investigation that such heaps received various kinds of slops from the house that contained fertilizing material, or were found by the cats or dogs around the place the most convenient means of disposing of their excrement. Coal ashes are one of the best of absorbents. A surface covering of manure heaps with them will prevent loss of ammonia, which will be retained in the ashes. Not more than needed for this purpose should be used, and it is better to use German potash salts, which effect the same purpose, and have fertilizing properties besides. Still an old coal ash heap is worth saving. It makes an excellent mulch under trees, especially if it is desired to kill the grass under and around them. Covering the entire surface under plum trees with coal ashes has sometimes been known to stop the curculio, probably when the little Turk could find plenty of other plum trees near by not thus protected.

New York's Strawberry Supply.

The strawberry season in this market 30 years ago extended from about the middle of June to about the middle of July; the fruit came chiefly from New Jersey, with some from along the Hudson River in this State. Now the regions of supply extend from Lake Ontario to southern Florida, and the season begins in January. Soon after the close of the civil war the strawberry-producing territory was extended southward from northern Jersey into Delaware, Maryland and Virginia, the areas cultivated being all close to railroads and quick communication. Within a few years strawberries were coming in carload lots from Delaware and Maryland, and ten years after the war from Virginia.

From Virginia the cultivation of strawberries for the Northern market spread through North Carolina, South Carolina and Florida; from these three States strawberries have been coming here in carloads for ten years and more. Not many strawberries are received here from Georgia.

The first of the Florida strawberries are received now about Jan. 1, which is considerably earlier than even Florida berries were received here at first. Florida berries are received until about the middle of March, the earliest berries coming from the more Southern parts of the State, shipments being made from parts further and further northward in the State as the season advances. Charleston berries begin to come usually from the 10th to the 20th of March, the season continuing until the 10th to 20th of May. North Carolina begins shipping about April 15 and continues until May 10 to 20. Norfolk strawberries come from about May 1 to May 31. The strawberries from south of Virginia come almost exclusively by rail, and in refrigerator cars in fast trains, those from south of Charleston being largely packed in refrigerator boxes specially designed for the purpose. Of the Virginia berries, perhaps half are shipped by boat from Norfolk. Maryland and Delaware ship from about May 15 to June 10, and then south Jersey begins and continues for about 10 days; berries from north Jersey begin to arrive about the middle of June.

While the cultivation of strawberries was extended greatly southward from Jersey after the war, it was also at that time largely increased and extended further north, along the Hudson River, and to districts in this State still further north. For about 15 years strawberries have been received here in large quantities from Oswego and from central New York. The Hudson River berries begin coming late in June and continue until about July 4. Boston gets strawberries from Nova Scotia and New Brunswick as late as the middle of August. Some strawberries are now received here from California in November and December, but not in great quantities.—N. Y. Sun.

French Coach Horses.

The continuity of purpose pursued by the French government in its effort to develop a race of handsome, fast, high-acting trotting horses is being crowned with the success it so richly merits. The officers to whom the selection of stallions for the government studs has been delegated have never sacrificed aught of conformation, action or breeding to mere speed, the French principle being that that the horse fit only for use as a gaming tool is not a profitable horse for its people to breed. Though we have of late seen much in the public prints to suggest many things about our sister republic distasteful to the American mind, there is no denying that the affairs of the National Haras have been administered strictly for the great benefit of the horse breeders en masse, not for any particular clique or few among them, or according to the views of any great man temporarily in power.

The belief was reached long, long ago that the horse of great beauty of conformation, great substance and equal endurance, high breeding, high action and great speed, is the most profitable for the general breeder to produce, and to that end the Government set resolutely to work to evolve on a thoroughbred basis a breed of trotters in which, however, speed should not be the great desideratum. The horse and the action first and the speed afterwards was the original motto, and today the purchasing agents select the best horses, with as much speed as possible, for use in the national studs.

How well the French have succeeded in producing a great breed of trotters is evidenced in two ways: First, by the fact that no more beautiful horse exists than the French trotter, or French Coacher, as we know him in this country; and second, by the fact that trotting speed is produced with greater regularity and proportionately in greater volume in France than it is anywhere else in the world, not excepting the United States.

The official list of winning sires is at hand, and from it we gather, as stated in advance last week, that Fuschia is again in the lead. This time his showing is literally marvellous, and has never been approached in America or elsewhere in any breed of race horses in point of his number of winners, while no trotting sire has ever approached him in point of money won by his get.

A striking fact, and one showing the progressiveness of the French methods in breeding trotters, is that almost all the most successful sires of money-winning trotters are young, as the following list will show, the figures before the stallion's name indicating the year in which he was born, those immediately following his name the number of money winners he had out in 1898 and the sum of money is that won by the winners enumerated. Here is the list:

1883—Fuschia	51	$59,755
1885—Harley	29	38,700
1880—Cherbourg	29	21,864
1888—Kalmia	23	15,205
1887—James Watt	19	13,100
1871—Phaeton	13	9,040
1888—Nabucho	18	8,575
1887—Juvigny	18	8 411
1888—Kiffis	10	7,390
1890—Michigan	6	6,671
1887—Jaguar III	9	6,330

It will be seen that with the exception of old Phaeton he was foaled in 1871, and Cherbourg, who is nineteen years of age, Fuschia at sixteen, or rather fifteen, last year when the winners referred to were out, is the oldest sire among those mentioned, while Michigan, who is straight French bred despite his American name, was only eight, and the most of the rest but ten or eleven.

This prominence of young sires is assuredly due to the policy pursued by the government of buying three-year-old stallions, retiring them at once to the stud before their vitality has been sapped by excessive campaigning, and so continually making way for the younger and better generations. By this practice, the best of each year is sifted out by means of the race track, and if actually and completely sound, placed in the national haras. It makes no difference how much speed a colt may have, unless he has superb individuality, action of the right sort, endurance of the highest order, and is absolutely sound and free from blemish or defect, the government will not buy him.

Let us dissect the showing made by Fuschia in 1898, or rather by his get the year their sire was 15. He had 51 winners of money and records on the French trotting turf, a showing never made before by a trotting sire. These 51 comprised one seven year old, four six year olds, eight five year olds, 10 four year olds and 28 three year olds. Who ever before heard of a trotting sire being represented in one season by 28 three-year-old winners of money and records? No one for the performance stands unparalleled and alone. Fuschia is limited to 50 mares each season. How many of his 50 consorts can he have got with foal in the spring of 1894?

Naturally these mares were selected with the greatest care, and only regular breeders accepted for his embrace; but a stallion usually is thought to do well if he gets 60 per cent. of his mares with foal. Let us suppose that he did even better than this, and that 40 foals by him were dropped in 1895; how many of these reached three years of age in shape to show speed? Experience gained on this side of the ocean avails us naught here, for no such number of three year olds were ever seen racing in one season and claiming the same paternity. Quite a few of the foals born must have died or been injured prior to their third year, and when we make all these allowances we find that an enormous percentage of Fuschia's get of 1895 proved winners of money and records in 1898.

Nor has he just one year of such success to his credit. He has been the leading sire for the past six seasons in France, and within that time his get have won upwards of a third of a million of dollars. Where can we pick out another trotting stallion to be compared to him in these particulars? Nowhere can we find one. Fuschia stands alone. It should not be forgotten, either, that the purses raced for by trotters in France are not large, ranging as they do in an ordinary way from 500 to 2000 francs, or from $100 to $400. Every few purses of over $400 are offered in a general way, and the most valuable of all, the Prix Ministere de l'Agriculture, annually competed for by stallions late in the fall, is worth 25 000 francs or $5000, of which the winner gets $4000. Purses even of 5000 francs or $1000 are scarce, and it takes a lot of racing for a French trotter to win as much in a general sort of way as one of our trotters may win in a single race at any one of the Grand Circuit meetings. To win so much money as they did Fuschia's get had to race and stay and cut and come again.

The young horse Harley, foaled in 1875, and therefore but 13 years old in 1898, makes an almost equally good showing, all things taken into consideration. Of his 29 winners of money and records, some 17 or 18 were three year olds, which is in itself a wonderfully good showing, and proves that Harley is siring trotting speed with a uniformity seldom before shown. Even that showing has never been equaled in America. What would be considered of a stallion in the United States that sent out winners enough to rol up far more than was won by the get of the leading sire of the United States money-winning trotters last year, and 17 or 18 of these winners only three year olds? Then take Nabucho, but 10 years of age and credited with 18 money winners. Is not that a wonderful showing? Another thing worth mention is that all these stallions named in the list above were trotters themselves and good race winners, selected by the government when shaken to the top by the actual test of the race course.

It is only natural to suppose that when the progeny of the sons and daughters of these stallions shall have placed another generation on the trotting turf in France, still greater regularity and uniformity of speed production will be marked. These facts and figures show how great is the success that is being achieved in France by at all times honoring the basic principle of evolution,—the survival of the fittest,—and using the race course merely as a means whereby the good may be sifted from the mediocre and inferior, to the end that the horse of the greatest use to the greatest number may be produced. A.

N. T., Massachusetts: I got an answer in your valuable paper under date of Nov 8, 1898 addressed to "N T." Massachusetts. I followed instructions with good results as he stopped the habit for six weeks, but now he has commenced to heat is manure again. What shall I do to stop him?

Answer: Continue the treatment suggested on date you refer to for another month, and you will again obviate the trouble.

H. F. Camp, North Dakota: (1) I have a young stallion that has sprung a slight curb, and I wish you would advise me as to how it should be treated and if the blemish can be removed. He shows no signs of lameness as yet. (2) My four-year-old filly has both hocks quite badly capped. Kindly prescribe for her.

Answer: In reply to your inquiries would suggest that you blister the curbs, also the chapped hocks. At their age absorption goes on much more rapidly than in older animals, and blistering is the most potent remedy for such cases. It can be repeated at intervals of two weeks between. By using my liquid blister it can be repeated oftener and leaves no scar or blemish. It is absolutely safe to use on young animals. This treatment will have the desired effect in removing the enlargements.

Success comes to those who persevere. If you take Hood's Sarsaparilla faithfully and persistently, you will surely be benefited.

LIQUID EXTRACT OF SMOKE.

An Improvement on the Smoke-house for Preserving Meat.

Smoking meats in a smoke house with all its delays and annoyances, and the constant danger of thieves getting the meat, is being rapidly done away with as farmers and stock raisers become better acquainted with the cleanliness, safety and saving of time that comes from using the Liquid Extract of Smoke prepared by E. Krauser & Bro of Milton, Pa. The liquid is applied with a brush or a sponge, and the meats can be hung in a garret or other safe place, away from thieves, either four-legged or two-legged. Krauser's Liquid Extract of Smoke is prepared from selected hickory wood. It contains the same ingredients that preserve meat when the wood is burned under it in a smoke-house. It improves the flavor of meat, is perfectly healthful, and is a better safeguard against insects than the old way of smoking. The manufacturers will send circulars to any one interested.

F. D.: I have a six year old gelding that stands 17 hands high, and weighs 1100 pounds. He scalps when roading at a fair clip, but does not when speeding fast. He wears seven ounce shoes behind and 11 ounce ones forward. His feet are 1⅛ inches at the heel, 4¼ inches at the toe behind, and 1¾ inches at the heel and four inches at the toe forward. He knuckles over behind when jogged fast and to me a cramp seems to take him in the legs between the hoof and stifle. When jogging he stumbles a little forward, but not when going fast. When he is led out of his stall in the morning, he lifts one hind leg like a horse troubled with sprung hock.

Answer: The best advice I can give you is to give the horse a dose of swap, as his legs are too long and he will require constant patching and you will become disgusted with him. Trade him off at first opportunity.

O. H. L., Pennsylvania: My mare's skin is full of dandruff and I have come to the conclusion that it was abnormal, and that perhaps her digestive apparatus was out of order. I have seven bushels of oats mixed with 50 bushels of cracked corn, and give her nearly four quarts of this mixture twice a day, and two quarts of bran with one of these meals. For the third meal I give a peach basket nearly full of cut hay mixed with chops, which are made of two parts white middling and one of corn chops. I take nearly four quarts of chops. I also feed medium-sized bunch of long hay. The mare generally gets a daily drive of from six to 12 miles.

Remember that Bowker's Animal Meal is sold only in yellow bags and yellow packages. The original; richest in protein.

Consumption Cured.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections; also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper. W. A. NOYES, 820 *Powers' Block, Rochester, N. Y.*

Commonwealth of Massachusetts.

MIDDLESEX, SS. PROBATE COURT.

To the heirs at law, next of kin and all other persons interested in the estate of HORATIO N. HOVEY, late of Cambridge, in said County, deceased.

WHEREAS, certain instruments purporting to be the last will and testament and one codicil of said deceased have been presented to said Court, for probate, by Gardner Chapin, Horatio N. Hovey and George W. Dearborn, who pray that letters testamentary may be issued to them, the executors therein named, without giving a surety on their official bond.

You are hereby cited to appear at a Probate Court to be held at Cambridge, in said County of Middlesex on the twenty-eighth day of February, A. D. 1899, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted. And said petitioners are hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court, and by mailing, postpaid, or delivering a copy of this citation to all known persons interested in the estate, seven days at least before said Court.

Witness, CHARLES J. McINTIRE, Esquire, Judge of said Court, this twenty sixth day of January, in the year one thousand eight hundred and ninety-nine.

S. H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS. PROBATE COURT.

To the heirs-at law, next of kin, creditors and all other persons interested in the estate of THOMAS DEVENS late of Cambridge, in said County, deceased, intestate.

WHEREAS, a petition has been presented to said Court to grant a letter of administration on the estate of said deceased to Mary E. Devens of Cambridge in the County of Middlesex, without giving a surety on her bond.

You are hereby cited to appear at a Probate Court, to be held at Lowell, in said County of Middlesex on the twenty-first day of February, A. D. 1899, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And the petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN AND NEW ENGLAND JOURNAL OF AGRICULTURE, a newspaper published in Boston, the last publication to be one day, at least, before said Court

Witness, CHARLES J. McINTIRE, Esquire Judge of said Court, this thirty-first day of January, in the year one thousand eight hundred and ninety-nine.

S. H. FOLSOM, Register.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, SS. PROBATE COURT.

To the heirs at law, next of kin and all other persons interested in the estate of ROYAL K. MUNROE, late of Somerville, in said County, deceased.

WHEREAS, a certain instrument purporting to be the last will and testament of said deceased has been presented to said Court for probate, by Thomas H. Edgerly, who prays that letters testamentary may be issued to him, the executor therein named, without giving a surety on his official bond.

You are hereby cited to appear at a Probate Court, to be held at Lowell in said County of Middlesex, on the twenty first day of February, A D 1899 at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court, and by mailing, postpaid, or delivering a copy of this citation to all known persons interested in the estate, seven days at least before said Court.

Witness, CHARLES J. McINTIRE, Esquire, Judge of said Court, this twenty sixth day of January in the year one thousand eight hundred and ninety-nine.

S. H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS. PROBATE COURT.

To all persons interested in the estate of GEORGINA PAYSON HOOD of Cambridge, in said county, an insane person.

WHEREAS, SUSAN A. GILMAN, the guardian of said ward, has pressented for allowance her fourth account as guardian upon the estate of said ward.

You are hereby cited to appear at a Probate Court to be held at Cambridge, in said County, on the twenty-eighth day of February, A. D. 1899, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be allowed.

And said guardian is ordered to serve this citation by delivering a copy thereof to all persons interested in the estate fourteen days at least before said Court, or by publishing the same once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court, and by mailing post paid, a copy of this citation to all known persons interested in the estate seven days at least before said Court.

Witness, CHARLES J. McINTIRE, Esquire, Judge of said Court, this seventh day of February in the year of our Lord, one thousand eight hundred and ninety-nine.

S H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS. PROBATE COURT.

To the heirs-at-law, next of kin, creditors and all other persons interested in the estate of HATTIE P. NOWELL, late of Melrose, in said county, deceased intestate.

WHEREAS, a petition has been presented to said Court to grant a letter of administration on the estate of said deceased to Walter T. Nowell of Melrose, in the County of Middlesex, without giving a surety on his bond.

You are hereby cited to appear at a Probate Court to be held at Cambridge, in said County of Middlesex, on the twenty eighth day of February, A. D., 1899, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted. And the petitioner is hereby directed to give public notice thereof, by publishing this citation, once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN and NEW ENGLAND JOURNAL OF AGRICULTURE, a newspaper published in Boston, the last publication to be one day, at least, before said Court.

Witness, CHARLES J. McINTIRE, Esquire, Judge of said Court, this first day of February, in the year one thousand eight hundred and ninety nine

S. H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS. PROBATE COURT.

To the heirs-at-law, next of kin, creditors and all other persons interested in the estate of LUCY LERNED, late of Cambridge, in said County, deceased, intestate.

WHEREAS, a petition has been presented to said Court to grant a letter of administration on the estate of said deceased to Charles W. Lerned of Cambridge, in said County, or to some other suitable person

You are hereby cited to appear at a Probate Court, to be held at Cambridge, in said County of Middlesex, on the twenty-eighth day of February, A. D. 1899, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court.

Witness, CHARLES J. McINTIRE, Esquire, Judge of said Court, this sixth day of February, in the year one thousand eight hundred and ninety-nine.

S. H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS. PROBATE COURT.

To all persons interested in the estate of S. GILMAN FROST, late of Ashby in said County, deceased:

Whereas, George A. Opton, the administrator of the estate of said deceased, has presented for allowance the first and final account of his administration upon the estate of said deceased:

You are hereby cited to appear at a Probate Court to be held at Cambridge in said County, on the twenty-eighth day of February, A. D. 1899, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be allowed.

And said administrator is ordered to serve this citation by delivering a copy thereof to all persons interested in the estate fourteen days at least before said Court, or by publishing the same once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day at least before said Court, and by mailing, postpaid, a copy of this citation to all known persons interested in the estate seven days at least before said Court.

Witness, CHARLES J. McINTIRE, Esquire, Judge of said Court, this seventh day of February, in the year one thousand eight hundred and ninety-nine.

S. H. FOLSOM, Register.

OUR HOMES.

Cheerfulness.

Much use is made of the word duty in connection with the various affairs of every-day human life, and so great emphasis is commonly given the word by its manipulators—mainly in reference to the affairs of other people—that most of us have grown to dislike it heartily.

There is one veritable duty, however, which is not often enough insisted upon, the fulfilment of which is never impossible, that of presenting a cheerful appearance to the great world in which we live.

You may pass through the doorway in rack or in file,
If your passport from Nature is stamped with a smile.

Thus truthfully sang the poet, and this truth may be verified beyond doubt by any one who will take the trouble to make a mental inventory of his personal friends, or those with whom he is associated in various relations.

It is the exceptional person whose life is all sunshine. Few, if any, but have known some dark days, when sorrow or misfortune seemed to blot out hope, and gloom and inexpressible desolation shrouded the impenetrable future. Often we long to minister to such suffering souls, but fail to reach them, because they have withdrawn within themselves, and closed the portals against the outer world.

But how one's sympathies go out lovingly to the brave sufferers who smile while vainly struggling to repress the tears welling up from hearts overburdened, thus striving to radiate a ray of cheerfulness from even their darkened lives.

Many who long for some great work to do for the benefit of humankind forget to perform the little duty which lies at every hand, simply to be cheerful. The pleasant smile, the kindly word, cost nothing; yet such have been the means of times of changing the current of grief and despair to one of hopefulness and renewed courage, and such help invariably reacts beneficially upon the giver.

Especially in the home is cheerfulness a requisite. Nothing so strengthens the ties which bind the members of a family to each other as an all-pervading atmosphere of good cheer. Whatever qualifications the homemaker may or may not have, if she be equipped with a never-failing stock of cheerfulness, her dear ones will always turn joyfully from the annoyances and irritation of the busy world outside to the home, finding there a haven of restfulness and peace and blessedness.

One can well afford to efface self, even though the heart be well nigh breaking, while the inestimable privilege remains of scattering a single ray of brightness into the lives all about, and there is no surer way of doing this than to acquire and maintain a habit of perpetual cheerfulness.

ELIZABETH ROBBINS BERRY.

A Black Gown.

No wardrobe is complete without a black gown, for it is suitable for almost any occasion, never looks conspicuous, and one does not tire of it. Black never goes out of style, and whether the material is cheap or expensive, it is always becoming and ladylike in appearance. A considerable sum may be spent for a new black gown, but many of us are compelled to be economical and remodel our old ones that have grown too old fashioned to be presentable, as long as the material is good. This task is a simple one, since the sleeves have grown smaller and the skirts have again assumed reasonable dimensions, and a few suggestions will be given to help the amateur to accomplish pleasing results.

If the old dress is to be made over, rip it apart, being careful not to cut or stretch the seams. Separate the outside and lining, and brush thoroughly. If the skirt linings are to be used again, wash, starch and iron them without pulling them out of shape. New waist linings are necessary to secure a perfect fit. The outside material should be placed in a tub of warm suds, washed quickly, rinsed in warm water, and hung in the sunshine to dry without delay. Press it on the wrong side while still quite damp, and it will look fresh and new.

Many of us have colored gowns that we have grown tired of or that have become too badly faded to look well, and these can be dyed a beautiful black with diamond dye for wool. Several different colors of cashmere, serge or other material may be put in and dyed together. There will not be a particle of difference in the shade when this is done, and they can be used together in making the new gown. The skirt is likely to be too short, in which case the lining should be cut the proper length, and the outside pieced down, covering the joining with black braid, or if pieces like it cannot be obtained, lengthen with two bias folds of black silk. If a new skirt must be cut out, use a five or seven-gored pattern, and make it three and one-half or four yards wide. The new styles with shaped flounces are nice for made-over skirts, for the upper part may be of one material and the lower part of another if the two kinds look well together. You will need new canvas facing and binding. The best is the cheapest where skirt bindings are concerned, for one good velveteen binding will outwear two or three poor ones.

The waist of a black gown may be brightened in many ways if all black is not liked. Full fronts of bright-colored silk are handsome, and change the appearance of a sombre dress wonderfully. Yokes of silk covered with black net are favorites with many. Tucks, braid and insertion are used for trimming, and may be made to conceal a great deal of piecing, in fact, ingenuity and good taste are worth a great deal to a woman in this work. The sleeves are likely to be the very large ones. Lay your pattern upon them, and if you will cut economically, there will be enough in the upper parts for the new sleeves without using any that is badly worn. Finish the tops with round or pointed caps, and if the skirt is trimmed with braid, put a row or two of it around the caps also.

The waist will always wear out sooner than the skirt, and a fancy waist of some kind may be made and worn with it, affording variety, and lengthening its period of usefulness. Partly worn silk makes pretty waists. If you have skirts or other garments of woolen goods, the best parts of them may be utilized in this way after dyeing them the color desired with diamond dye. Dark blue, green and any shade of red are suitable for them. If you have saved the good lace and passementerie, also pieces of velvet and silk that were taken from old dresses, you will doubtless find plenty to trim it nicely. Make it up in any style that is becoming to your face and figure, and you will be pleased with the result. E. J. C.

A Knitted Shawl.

Obtain two skeins of Fleisher's Shetland wool cream white, one skein pink, one skein light blue, one skein yellow. Use large-size rubber needles.

Cast on loosely 150 stitches with white, knit 12 times across plain, this forms 6 purls, then twice across, 1 purl, yellow.

IN THE MASSACHUSETTS WOODS.

Knit 6 purls of blue, 1 purl of yellow, 6 purls of pink, 1 purl of yellow, 6 purls white, 1 purl yellow, 6 purls blue, 1 purl yellow, 6 purls white, 1 purl yellow, 6 purls pink, 1 purl yellow, 18 purls white, 1 purl yellow, 6 purls blue, 1 purl yellow, 6 purls white, 1 purl yellow, 6 purls pink. This is the centre of shawl.

Now reverse the order, beginning with 1 yellow above 6 pink and go backward with the directions, finishing the shawl with 6 purls, or 12 times across of white. Bind off loosely. A pretty finish is a fringe knotted in of the different colors.

EVA M. NILES

Influenza.

Influenza, or the grip, is an acute infectious fever which usually occurs in widespread epidemics. It travels, as cholera formerly did, in waves over the world, running generally from the east to the west. It attacks a very large proportion of the population, especially at the beginning of an epidemic; then in recurrent years it seizes upon those who previously escaped, and the epidemic does not finally die out until nearly every one has suffered its miseries.

Medical writers usually distinguish three forms of influenza, according as the nervous, the digestive or the catarrhal symptoms predominate, but all constitute one and the same disease, and one form may easily pass into another in the course of the same attack.

In a typical case influenza begins suddenly with a general ill feeling, headache, pains in the muscles and in the back, loss of appetite, and a sense of extreme weakness. There may be a hard chill, or a succession of slight chills, or a general chilly sensation, and soon a high fever declares itself.

The eyes are often congested and sensitive to light, the nose runs, there is pain at the root of the nose and over the eyes, and all the symptoms of a severe cold in the head are experienced. The tongue is heavily coated, swallowing is difficult or painful, and the voice is hoarse or whispering. Often there is more or less jaundice. The pulse is very rapid and weak, especially when the patient stands.

A peculiar symptom in influenza, one that often serves to distinguish it sharply from an ordinary cold, is a marked depression of spirits; the patient is plunged in despair, and no amount of argument or raillery has any effect on his misery. In some severe cases of the so-called nervous form of the disease this melancholy is so extreme as to lead to attempts at suicide.

In the gastric form of influenza we find a loathing for food, nausea and vomiting, and severe bowel troubles. In the respiratory forms, bronchitis and especially pneumonia are frequent and dangerous complications.

In the treatment of grip we must first remember that we are dealing with no ordinary cold, but with a severe disease calling for as much care as scarlet fever or pneumonia. The patient must not only stay in the house but in bed. All cases of grip, whether mild or severe, need a physician's oversight.—Youth's Companion.

Immunity from Disease.

What confers immunity generally seems as yet a thing quite unknown. But it seems to me nothing more than being constantly at the "top of one's condition." Experiments on animals go to show that whatever lessens the vitality or lowers the general strength or vigor, whatever depresses the system generally, whether from physical or mental cause, in the same degree lessens the general resistance, and the resistance thus lessened renders man vulnerable or susceptible to whatever he is exposed to. The resistance may be lowered by many things,—overwork, fatigue, loss of sleep, disappointment, unsatisfied ambition, grief; in short, by hardship of any sort, whether it affect the body or the mind, by anything which puts a man out of harmony with his environment.

When we consider the habits of the average man, both in the conduct of life and his thinking as well, it is very apparent that with the best intentions, he is almost constantly doing something to lessen his resistance, not appreciating how much it affects his general condition or his health. These facts are of much practical importance to the physician especially, whose duty often calls him to subject himself to risk. Before exposing himself he should be sure he is in the best condition of both body and mind. To come in contact with contagious disease after a night of fatigue or a bout of dissipation, after a hardship in which the strength has been reduced, or while suffering from any depressing emotion (as grief, nostalgia, etc.), is to take the greatest risk. It is thus seen how important it is for man to take care of himself, to observe carefully the laws of health, to keep the body and mind in the best possible condition all the time, especially if liable to exposure to disease of any sort. A body thus fortified is in the best state of resistance, and wards off disease, or if disease does actually gain access it is enabled the easier to throw it off.—S. A. Russell, M. D., in Medical Record

Bogus Medicines that Cure.

An English lay journal says: "A curious proof of the influence of imagination is the little trick so often practised by doctors on their patients. In some diseases medicine is not only useless, but actually injurious. Yet when a man is paying money for medical attendance he expects to see some sign that he is getting value in the shape of bottles and pill-boxes. The doctor in that case has no option but to deceive. In typhoid fever, for instance, no known drug is of any use. The microbe must be left to tire himself out. But to please his patient the knowing doctor always prescribes a bottle of colored water. It is called a 'placebo.' In other cases it is usual to give bread pills. There are many extremely nervous people to whom any kind of medicine would do harm. So the doctor gives them a couple of good-sized bread pills and says, 'These will give you a sound night's rest,' or 'These will remove your headache.' And the remarkable thing is that they do. In fact, with bread pills the medical man can produce quite a variety of effects."

Danger in Tin Cans.

Open a can of peaches, apricots, cherries or other fruits—for all fruit is acidulous—let it stand for some time, and the fruit acids and the tin are ready to do their work of poisoning. A chemical knowledge that tells just how the dangerous compound is created is unnecessary to an avoidance of the peril. The rule to follow is never to make lemonade or other acidulated drinks in a tin bucket nor to allow them to stand in a vessel of tin; and, in the case of canned fruits or fish, immediately upon opening the can to turn the contents out upon an earthenware plate or into a dish that is made of earthenware or glass. Fruits in hermetically sealed cans, if properly prepared, generate no poison. As soon as opened, the action of the acid with the aid of the atmosphere begins, and in a short time the result is a deadly poison—Sanitary Record.

Domestic Hints.

FARINA BALLS.

Add to plain-cooked farina before it is cold some beaten egg yolks, according to quantity of farina, and mould into small balls. When cold dip the balls into beaten egg, roll lightly in fine bread crumbs, then fry in deep fat till a delicate brown. Good with steak or to eat with maple syrup.

SOFT GINGERBREAD

Stir together one cupful of lard, one cupful of sugar, three well-beaten eggs, one cupful of molasses (New Orleans preferred), three cupfuls of flour, one tablespoonful of ginger and one tablespoonful of soda; dissolve in a very little vinegar and one cupful of boiling water. Bake in a medium hot oven.

DANISH DUMPLINGS.

To one pint of boiling milk add a half pound of rice flour, which has been rubbed smooth in a second pint of milk. Stir till it thickens well, then add a half tablespoonful of butter and half of a nutmeg grated; when cool add two eggs and salt to taste. When quite cold, cut into very small, regular pieces and drop into boiling hot water for a few moments. Then put the dumplings in the soup tureen and pour in the hot bouillon or "pepper pot." These are delicate and delicious, and make a very dainty-looking dish, if cut into pretty shapes; they can be fully moulded with a teaspoon, and, in this form, are very tempting looking.

CHOCOLATE CARAMEL.

Three pounds brown sugar, coarse, half pound of butter, half pound of chocolate, scraped fine, one pint cream or milk. Melt all these together with care, and boil twenty minutes or half hour, stirring all the time. Just before taking it off the fire pour in vanilla to flavor, and stir in half or a whole cup of granulated sugar. Pour it in a pan, and when half cool score it. It should be half an inch thick. Cut up into pieces about an inch square.

POTATO SCONES.

Take two cupfuls of mashed potatoes, half a cupful of sifted flour, a pinch of salt, a tablespoonful of butter and sweet milk to let the dough be rolled. Rub the butter into the potatoes, add the flour and then mix thoroughly. Now add sufficient sweet milk to make a moderately soft dough; press firmly with the palm of the hand into a circle about half an inch thick. Cook over a moderately hot fire and serve while hot.

MINT DROPS.

One pound white granulated sugar, nine table spoonfuls of water. From the sugar take one-half teaspoonful, then put sugar and water on to boil, let it boil ten minutes after full boil. Into the one-half teaspoonful of sugar taken out put a pinch of cream of tartar, and then put this and fifteen drops of oil of peppermint into the boiling sugar and water as you take it from the fire. Beat mixture with a tablespoon until white like milk, for about fifteen minutes, then drop on white paper. Take up when nearly cold.

Hints to Housekeepers.

Hemstitching for table linen is not now considered so desirable as a narrow, hand-sewn hem one as nearly like selvage as is prudent.

High-stemmed goblets are in vogue again in place of the less decorative tumblers.

Soap bark is now advised as a cleanser for the hair. Boiling water should be poured over it in the proportion of a quart of water to a dessert spoonful of the powdered bark. After the liquid is comfortably cool, separate the hair and rub the stuff carefully into the scalp. Then rinse the whole head carefully. A shampoo brush can be used if desired.

A good housekeeper, who clings to the spicy and historic mince pie, has a way of putting up her mincemeat which is very satisfactory and convenient. She cans it as she would a preserve. She has jars which hold just enough mincemeat for one pie. She can make one pie or a dozen, at whatever number she makes she leaves the remainder of her mincemeat undisturbed, and none of it ever by any chance moulds or spoils.

Great care should be taken in cleaning silver trimmed tortoise-shell or ebony toilet articles. Ammonia or silver powders destroy the finish of these materials. A little powder may be put on a piece of chamois, and the silver rubbed carefully, after which a perfectly fresh piece of dry chamois may be used to polish it, without injuring the shell or ebony.

A woman of good taste whose children in the nursery always are pretty and picturesque, dresses them in little Russian blouses of checked gingham. These little garments are practically aprons, which are loose and comfortable and protect the clothes beneath. They are simply made, there is very little more work in one than in an apron, and yet, where the apron is an ugly, utilitarian affair, the blouse is distinctly attractive.

Baked toast is a simple luncheon dish which becomes an esteemed delicacy when rightly made. A day old baker's loaf is cut in rather thick slices and toasted to a delicate brown. Each slice is then cut in two and packed in a baking dish before being covered with hot milk in which a little butter has been melted. The dish is set in a fairly hot oven long enough for the milk to be thoroughly absorbed but not dried in. Served hot but not too soft, and with some tart jelly handed around with it, the dish is suitable for luncheon or a Sunday-night tea.

To keep cheese from moulding cover it with vinegar. The cheese will keep as fresh as when first cut, and the vinegar will in no wise impair the flavor of the cheese.

Crackers in damp weather often become soft and crumbly. To restore their crispness, put them in a hot oven for a few minutes.

To prevent a boot or shoe from slipping off at the heel gum a little piece of velvet inside the heel of the shoe. This will make it cling to the stocking, and prevent slipping.

A tablespoonful of ammonia to a quart of water is the best medium for cleaning windows, lamp chimneys or any kind of glassware.

Ink stains may be easily and quickly removed from the fingers by rubbing them with the head of a sulphur match which has been well moistened.

To wash a glass which has held milk, plunge it first into cold water before putting it into warm. The same rule holds good for egg-cups, or spoons from which eggs have been eaten.

The Fashions.

, Beautifully woven French suitings are this week opened to view, many of the most attractive patterns showing pretty two-toned effects or bayadere lines in raised silk.

, Tucked waists of taffeta or corded silk in some pretty color are an important part of the tailor-made coat and skirt costume, and the latest fancy is to have the waist and hat match in color, a mauve silk waist and mauve hat being especially good style with a brown cloth skirt and coat. White blouse waists in panne, liberty satin, corded silk or taffeta are very popular with the cloth skirt, and white wings, lace or rosettes of tulle carry out the color scheme in the hat.

, The new watered silks are very handsome in coloring and effect, many of the more expensive grades being woven with a floral design on shaded silks. The French goods are in every instance most pliable, being as soft and easy to manipulate as satin royal.

, The summer display of open-patterned embroideries in lattice devices, in Honiton effects, Venetian point designs, edgings and insertions in Hungarian stitch, etc., is very tempting, writes a correspondent to the New York Evening Post. These dainty garnitures will lend great charm to the day costumes of the season of 1899, and fine French zephyrs, piques, dimities, organdies, mulls and batistes will be lavishly trimmed with them, some of the St. Gall patterns wrought on Swiss and India muslin, in fleur de lis, Venise point, valenciennes and Carrickmacross devices being appropriate for the adorning of the daintiest sort of evening toilette. The embroidered flounces in white, pink, primrose and other exquisite colors are shaped in many cases to conform to the present graduated style of skirt and bodice trimming, and there are insertions, shoulder and wrist frills, pinafores and blouse fronts to match, some having an additional and very decorative edge of Mechlin, valenciennes, Lierre or rose point lace.

, The expensive silk-finished French crepons which are tentatively displayed show wholly novel and stylish arrangement of their soft, wavy surfaces.

, Street jackets for the coming season are either buttoned close down the front or turned back in revers to the waist line or made double breasted, fastening from the shoulder down on the left side.

, A stunning muff to carry with your black cloth gown is made of black chiffon, shirred into tucks, and white Persian lamb. The chiffon forms the wide band around the centre, and the fur is the lining which extends over the edge in two white bands at the ends.

, Chenille dots, lines, bars, splinters, etc., are introduced with rich and novel effects on silk, satin, sheer wool cloth, and silk and wool fabrics for the spring and summer, and separate chenille bands, fringes, points, and many other new decorations are used as trimmings. Not only do these soft, light garnitures come in black, brown and other monochromes, but there are brought out very handsome floral, scroll, lace and other designs in pretty color combinations. Bands of these trimmings are in various widths, the broadest being used for revers, bolero effects, guimpes, vest fronts and panel and tunic edgings.

, Novelties in ribbons are added each week to those already shown, and now we have embroidered ribbons; white ribbon with bright red, green-stemmed cherries scattered all over it; ribbons scalloped on one edge with a brocaded feather design outlining the scallops in a two-inch band; ribbons with plumed gauze edges and narrow striped ribbons of all kinds, and colors gathered into little frills for trimming summer gowns.

, A novelty in skating gowns is made entirely of black caracul with rosettes of rose-colored velvet on the bodice to brighten the effect.

, Large shell combs are stylish and useful in the present elaborate coiffures. To be elegant these combs are studded with diamonds, and to be fashionable they are studded with coral. The smart girl now wears with her four-in-hand cravat a small gold chain, with a tassel on each end formed of gold fringe and a coral or pearl drop. This is passed through the knot and tied in a single loop. It is not in the least "mannish" looking.

, Hints gleaned at the principal millinery establishments of Paris place us in a position to vouch for the special importance to be given to shades included generally under the term "violet tints," namely, all the violets, purples, pansy and mauves, the claret-reds and pinks leading up to them, and the crimsons with a tinge of brown. Equal favor is likely to be meted out to them, and to fern greens, fuchsia and rose reds and pinks, pale blues, bright yellows and poppy color. A great deal will be done with cream and other whites with a dash of color in them. While by no means averse to combinations of several colors, and sometimes even daring contrasts, harmonies in different shades of one color or two colors nearly allied to each other may probably carry the day. However, in this, as in other matters, Parisian taste must have time to assert itself before any hard and fast rules can be laid down, and weeks, if not months, must elapse before the fashionable world is called upon to decide the momentous quest ons of vogue.

NOTES AND QUERIES.

BREATHING AT HIGH ALTITUDES.—"R. E. Q.," Andover: The experience of the doctor in charge of the men now laying the completed electric railway to the summit of the Gorner Grat in Switzerland (height 12,289 feet above the sea) is that dwellers in the plains can never accustom themselves to physical exertion at great altitudes. According to a recent article in the Revue Scientifique, the workers, many of whom were from the low-lying province of Bologna, worked perfectly well in 1896, when the elevation was below 2400 feet; but in 1897, when they were getting above that height, the workmen began to complain of lassitude, bad headaches, loss of appetite, and other symptoms, which at first led the doctor to think an epidemic of influenza had broken out. None of the affected men could do anything like their usual amount of work; and though a short stay at Zermatt, in the valley below, banished the unpleasant symptoms, they returned as severely as before when men resumed work on the mountain. The outcome of the observations was that the average man may be counted on to work up to a height of about 2900 feet; above 3300 his health and working power are seriously affected. In the end all the workmen from the plains had to be dismissed, and only mountain-bred men engaged.

COLD CLIMATE FAVORABLE TO LONGEVITY?—"W. H. S.": Cold climates appear to be favorable to longevity. In Norway, of 6927 who were buried in 1761, 63 had lived to the age of one hundred; and in Russia, out of 726,278 persons who died in 1801, 218 were one hundred years of age, and 220 above it, of whom four are said to have been above 130 years old. In the district of Aggherus in Norway there existed, in the year 1763, 150 couples who had lived together upwards of eighty years. Excessive cold, however, is prejudicial to long life. In Iceland and Siberia men attain at the utmost to the ages only of sixty or seventy. Temperate climes are, however, most conducive to long life. There the human frame is more complete, the body more vigorous, the mind best formed, and man in every respect reaches when well governed the highest degree of perfection. The districts of Arcadia, Crete and other parts of Greece were celebrated for longevity. More old men are to be found in elevated situations than in low countries.

PLANTING MISTLETOE.—"Young Farmer": This parasitic plant is not a good thing to encourage on trees, for, like all parasites, it is very injurious, but if it is wanted it is not difficult to grow. By lifting the bark from the wood of an apple-tree branch, and inserting the seed where the birds cannot get at it, it may be induced to grow, only, as the male and female blossoms are produced as separate plants, failure is very probable unless a good many are planted. Of course, care must be taken to get berries that have not been roasted by a fortnight's exposure to the heat of gas burners. It is a curious fact, by the way, that all old writers speak of the ash and the oak as the trees upon which mistletoe grows in this country. It is an exceedingly rare thing to find it in either of these trees now.

THE OLDEST FAMILY IN THE WORLD.—"W. H. B., Wilton": About a dozen of the four hundred barons in the British House of Lords date back to 1400, the earliest being 1264. The oldest family in the British isles is the Mar family of Scotland, 1093. The Campbells of Argyll, to whom belongs the present Duke of Argyll, began in 1190. Talleyrand dates from 1199, Bismarck from 1270, the Grosvenor family, the Dukes of Westminster, 1066; the Austrian house of Hapsburg goes back to 952, and the house of Bourbon to 864. The descendants of Mohammed, born 570, are all registered carefully and authoritatively in a book kept in Mecca by the chief of the family. Little or no doubt exists of the absolute authenticity of the long line of Mohammed's descendants. In China there are many old families, also among the Jews. When it comes to pedigree, there is one gentleman to whom the world must take off its hat as a great and only nonesuch. This is the Mikado of Japan. His place has been filled by members of his family for more than 2500 years. The present mikado is the one hundred and twenty-second of the line. The first one was contemporary with Nebuchadnezzar, 666 years before Christ.

THE CAUSE OF NAIL SPOTS.—"Young Lady": Authorities are apt to differ on this as well as other questions. Professor Beisly says: White spots on the finger nails represent flaws in the nutrition of the body. These flaws will always be found in cases of fever. They are evidences that for some reason nature has not done her duty in building up the nail. The nail is really a record of the life history, just as the hair is. Every hair is irregular in outline. A weak place here, a flaw there, represents the loss of a meal, or a night's sleeplessness. If a man has had a fever it is written in his hair as well as upon his finger-nails.

HOW TO EXAMINE THE EYE.—"Anxious": If anything gets into your eye don't rub it. Get somebody to turn the upper eyelid gently over a thin penholder so that he may see the ball of the eye thoroughly. The eyelashes, carefully grasped, will serve to turn the eyelid over the penholder. If lime gets into the eye, and if you see the accident at once, wash out the eye with vinegar to two parts of water. But if you don't see the accident immediately, simply put sweet or olive oil into the eye and send for the doctor.

POETRY.

(Original.)

A VALENTINE.

Dear heart, thy presence is a sun
That lights my path in clouded days;
Dispelling disappointments, doubts,
With bright and cheering rays!

Thy voice is like the summer breeze,
That whispers to the rose its love;
Thine eyes are fragments of the blue
Of azure skies above!

No tinsel gauze conveys my love!
It needs no trivial outward sign;
For deep within my heart I know,
Thou art my valentine!

A. E. Locke.

IF WE KNEW.

There are gems of wondrous brightness
Ofttimes lying at our feet,
And we pass them, walking thoughtless
Down the busy, crowded street;
If we knew, our pace would slacken—
We would step more oft with care,
Lest our careless feet be treading
To the earth some jewel rare.

If we knew what hearts are aching
For the comfort we might bring;
If we knew what souls are yearning
For the sunshine we might fling;
If we knew what feet are weary,
Walking pathways roughly laid;
We would quickly hasten forward,
Stretching forth our hands to aid.

If we knew what friends around us
Feel a want they never tell—
That some word that we have spoken
Pained or wounded where it fell,
We would speak in accents tender
To each friend we chanced to meet,
We would give to each one freely,
Smiles of sympathy so sweet.

—Genesee Richardson.

WHEN LOVE LIVES.

When all the world for Spring's sweet sake,
Its festal robe of green put on,
And flowers were gay in field and brake
Because the winter's power was gone;
Within the white-pearled hawthorn tree
You heard the mated thrushes sing;
You had no word to say to me,
For all your thought was of the Spring.

And when a thousand buds uncurled
A thousand scents your garden knew,
And when the wonder of the world—
The Summer world—grew clear to you;
You heard the skylark overhead
Between green fields and sky of blue;
You had no heart for me you said,
Summer had won your heart from you.

But now the woods grow thin and brown,
The dry ferns shiver in the breeze,
The year puts off her bridal gown,
Puts on her mourning draperies,
Down in your orchard robins sing;
Ah! Can you bid me go, my dear?
For Summer's gone, and gone is Spring;
'Tis Love alone lives out the year.

COQUETTE.

There is Jim and there's Tom and there's Jack
And the three of them seeking my hand.
Like furnaces sigh they, alack!
Now which of the three shall I land?

There's Jim, now, with money to spare,
But he's got such a glum-looking face.
There's Tom with his football hair—
He's a trifle too rapid of pace.

There's Jack with the face of a king,
But he hasn't a penny, I know;
So I think that to settle the thing
I'll simply get married to—Joe.

—Syracuse Herald.

AN IRISH ROSE.

I will send a rose across the sea
All in a letter smoothly pressed;
She will take the red, red rose from me
And hide it in her breast.

Her smiles will flash, her tears will start,
As if she saw her own loved shore,
And a little thorn will pierce her heart
For the pleasant days of yore.

For the pleasant days and the dear home ways,
Her father's voice, her mother's smile:
And her eyes will turn with a far-off gaze
To the pensive, low green isle.

For the stranger's land is not the land,
However fair it be and bright!
We carry the old home in our hand,
Our eyes reflect its light.

And the rose that grew by the cottage door,
The old home garden's joy and pride,
She will prize it more and love it more
Than all earth's flowers beside.

I will not waste one crimson leaf,
Nor pluck one thorn from the prickly stem;
It shall bloom in an exile's crown of grief
A pure and perfect gem.

—Ida Whipple Benham, in the Youth's Companion.

...."I guess I'm a coward," the boarder said,
As he hastily pushed back his chair.
"At the restaurant I'll breakfast instead,—
Only the brave would tackle this fare."
—Chicago Daily News.

....Now has my Christmas joy decreased;
My feelings are not pleasant;
For I find the girl I love the least
Sent me the nicest present. —Life.

....He fain would climb the ladder of fame
And win renown;
But she—the fickle, faithless dame—
Just threw him down.
—Indianapolis Journal.

....Christmas green
Maid serene
Sprigs of holly,
Enter Cholly;
Mistletoe.
Smack! M-m-oh!

....'Tis now the hunter roams the fields
With several barking Towsers,
And finds when night time settles that
He's only bagged his trousers.
—Baltimore American.

....Ah, the romance there is in married life,
Our happiness enhancing!
Why not, forsooth, with both
The husband and the wife romancing?

....Thrice lucky he, on Christmas gay,
Whose bank account's extensive:
We'd be less pensive were the day
Itself not so ex-pensive.

....The race is not in every case
Unto the swift, they say.
And by that same fame life may be
Passed by the man who "pegs away."
—Chicago News.

....Now as the prudent family man
For winter makes his preparation,
He sees, 'twould be a first-rate plan
For folks to have a coaling station.
—L. A. W. Bulletin.

....As he his gaudiness admires,
And struts and lets his cares relax,
He mocks the farmer, who perspires
While humbly sharpening his ax.
—Washington Star.

....Where is the mistletoe so gay,
Which smiled with conscious pride?
Alas, since Hobson came this way
It withered up and died.
—Washington Star.

....The poet sang of woodland ways,
Sweet singing birds and such as that;
The poet's wife then sold these lays,
And bought a stuffed bird for her hat.
—Chicago Record.

....Ring, sweet bells, in silver chimes,
Ring, sweet bells, for happy time;
Here we meet in love again,
Peace on Earth, Good Will to Men.
—James Bartlett Wiggin.

The B. A. and the Bells.

In one of the smaller towns of this learned island there is a public school which of late years has won particular renown. The head master is an Honorary Canon, a D. D., an LL. D., and several other things besides. The assistant masters are also men of letters, though not of so many, and, like the reverend head, they wear gowns and other scholastic insignia. This lends an air of academic refinement to the school, the lawns and the precincts generally.

The B. A. was a good-looking, clean-shaved rather pale young man of about five-and-twenty, and what is called a sound scholar. He was also, both in mind and body, a person of a certain solidity; some people said he was stolid, but of this the reader must judge. He dressed in black, wore gold-rimmed spectacles, and was the only son of a cousin of the head master's wife.

One morning in June he received a letter from the head master which gave him an agreeable start. Though not exactly a blighted being, he had began to think he had not quite his deserts. He had done so very well at his university, and had been so exemplary in regard to his mother, that it seemed a little anomalous, if not unjust, that after three years he should be nothing more than tutor to a manufacturer's sons in a town full of chimneys.

The head master's letter was formal, condescending and guarded. It intimated that the post of first classical master in the school was vacant, and if he, the B. A., would like to have it, his application would at least be considered. "You might come down to our commemoration," the letter said, "and meet some of the governors. Perhaps it would be well not to mention our family connection, such as it is."

He had not met the head master five times in his life, and had never seen the school; but he had heard a great deal about both. Though not particularly sanguine, he decided to go; yet he did not make up his mind immediately, being, to say the truth, a little deliberate in his mental movements.

He arrived late in the day, after a slow journey in dull weather. The evening, however, was remarkably fine; and the little town, with its steeples, towers and quaint red-brick houses,—and even the flat expanse around it,—seemed glorified in the clear sunlight into something not quite like a fragment of this common earth. The young man was curiously unobservant; but now, so great was the change from his late environment, he seemed to be endowed with sight and sensibility all at once. It reminded him of the city of his university, which, now that he came to recall it, was really a very charming place. At the railway station he was met by the Demonstrator in Physical Science and his wife, both of whom he thought remarkably cordial. They showed him over the schools, the grounds and the town generally. They even took him out to the bridge, where one sees, the two principal spires,—St. Catherine's and St. John's,—inverted in the water, and hears the music of the various bells of the community. They took him to the head master, who introduced him to the other masters in conclave, who in their turn were surprisingly friendly. So that the young man began to think his invitation had meant more than he supposed, and to be elated accordingly.

In the evening there was a mildly festive function such as are common at commemorations, commencements, and other school occasions. It was held in the schoolroom, and a good many ladies were present, several of them belonging to the families of the resident pedagogues. The B. A. was treated with much consideration, and quite as if one of the scholastic household. This made him still more elated, and nearer to excitement than ever before in his life. Then another thing happened. He found himself becoming deeply interested in a young lady with dark eyes and a rather brilliant color, who was soon introduced to him as a Miss Georgiana Smith, and whom he at length recalled as a slight acquaintance of his undergraduate days. He had not been greatly impressed with her then, he remembered, but now she seemed really a very vivacious and striking girl, and in a short time he fell victim to another set of emotions, which, however, harmonized completely with those already exercising him. Her image, or the idea of her, seemed to unite itself to the vision of his prospective post, and to brighten it like a nimbus or halo,—in such a manner, indeed, that he could not think of the two things separately. This, at least, was something like the way it affected him. It is true he did not speak with her more than once or twice, and she was closely attended by a large and rather objectionable male cousin, but the B. A. felt that the subtle bond with which fate had linked them together could not be affected by any male relative however large or obnoxious. His conviction, though not resting on a very solid basis, was strengthened when she expressed regret at not seeing him again for some time. "We are going away tomorrow for a month," she said at parting. "So very early, too,—the 8.35,—I don't know how we shall manage it."

After the public function there was another even more festive, and confined to members of the school staff. "We shall be glad to see you in the study tomorrow at ten," the head master said to him benevolently. "It's a little early, but one of the governors has an appointment at eleven. I like them to see the new—er—applicants personally, and I daresay it will be convenient for you." "Of course," said the B. A.

At a quarter to twelve that night he sat at the open window of a deliciously curtained old bedroom facing the schools. Below him was the smooth-rolled lawn glistening in the moonlight, and opposite rose the clock tower containing the Don, whose voice had sounded out regularly through the evening. How like it all was to his college, he thought. He had resorted to a pipe of mild tobacco (he hoped it wouldn't scent the curtains) to calm himself for sleep; but at the moment he was extremely wide awake. "There is a tide in the affairs of men and tutors," he said, "which taken at the flood leads on to an establishment in life; and I believe it's my turn now." In his case a twofold destiny seemed to be involved; but he recalled several precedents, classical and modern, where even tutors had won wife and fortune at the same stroke. He outlined a plan of action on the spot with a quickness which six hours before would have been abnormal. The first thing would be to see Miss Smith off by the 8.35 train—he felt sure it would be the proper course, and he could do it gracefully under the circumstances. There were infinite possibilities, he believed, in seeing people off by trains, and he would have plenty of time to keep his appointment with the governors at ten.

To allow an ample margin he set his alarm very carefully at seven, going to bed immediately afterward to secure what sleep he could. As he did so the clocks in the neighborhood jingled midnight confusedly. "What a row they make, to be sure!" he said; "but I daresay I should get used to it."

He slept at once, lulled by the sense that filial piety and sound scholarship were now to be rewarded. Naturally his slumber was light and not dreamless. Little color photographs floated before his eyes, made up of steeples, lawns, boathouses, gowns, ladies, swarms of pupils and solemn school assemblies—himself in a headmaster's robe presiding; the lovely Thais by his side (in the person of Georgiana); and all attended with a great deal of bell ringing. He was just administering magisterial punishment to a large boy (it was the male cousin) when he awoke.

The room was full of light and he could see the sun shining on the houses opposite. Being anxious to discover whether the charm of the place had vanished overnight, he rose and went to the window, but found it even more delightful in the freshness of the morning. "It must be early," he thought; "not more than four or five"; and, wishing to save himself for his double ordeal, he returned to bed. He had only just done so, however, when he noticed that his alarm clock had stopped; or rather, it had never started, as he had forgotten (for the first time in five years) to give it the necessary jog after winding. It stood stolidly at twelve, and he had now no means whatever of telling the time; the school clock was not visible from his window, and his watch, a family heirloom, invariably suspended operations when he slept. But reflecting that it really could not be late, and he should presently hear some clock or other,—there were enough of them about,—he prepared for a few moments more rest, when the Don's booming voice broke upon the silence. One! Two! Three Four!—the strokes were very deliberate, and he had no difficulty in counting—Five! Six!—he raised his head from the pillow uneasily—Seven! he jumped up with an exclamation of surprise at the coincidence, when still another stroke rang out and went vibrating through the close. Eight o'clock! He was done for now. Thirty-five minutes to dress, find a strange railway station and put in motion the most delicate and important machinery of human life! The attempt, however, was worth making; and although he never knew how it was done, he was dressed and standing on the pavement at twelve minutes past the hour. He had on his old college cap and carried the gown under his arm; he had brought them both for effect.

The first thing was to find the station,—there were two in the town, he knew. Some men with a dust cart were the only persons visible, and he called out sharply to the nearest:

"Hi, there! Which is the way to the 8.35 train?"

The man, who was blear eyed and dirty, turned on his shovel and stood staring.

"Wotever do yer want er the 'ight thutty-five train," he asked, in a husky voice, "at this toime er—"

The B. A. reddened deeply.

"What I want it for is really no concern of yours," he said, snappishly. "Be quick! where is it? The station, I mean."

"Oh," said the dustman slowly, eying him with suspicion. "If yer meant the Lon' Nor'west'n Station, w'y didn't yer say so? But wotever do yer want it for now?"

"Zounds!" the B. A. almost shouted (his expressions were all classical and time-honored); "never mind that! Where is it? Here's a shilling for you, if that's what you're after."

The dustman looked furtively up and down the street and at the houses—they were the quaint red-brick mansions referred to—and then extended his hand, putting the coin instantly into his pocket

"Over the bridge, 'arf a moile. Keep on as y' are; fust tu'n left, then roight," he said in a rough whisper, and added: "Yer don't look like one of 'em; but if yer've bin crib-crackin', and Oi gets inter any trouble er this, dommed if Oi don't—"

The B. A. happily missed the last scandalous remark—he had bolted off down the street. It led out into the flat country beyond the town, and before him were fields, market gardens and a low bridge. He made for the bridge, thinking it best to follow his directions literally, though he passed one or two turnings on the way. Once beyond the houses, as there was no one about, he started to run—he had lost a full minute undoing his front door (they seemed very late people), and two more with the dustman. As he crossed the bridge the quarter struck behind him; there were twenty minutes left. He was now in a straight country road, between hedges, and running swiftly, his gown, which he had slipped on, streaming back from his shoulders and fluttering in the wind. Under other circumstances it would have been an exhilarating race, the air was so fresh, the sky so pure, the hedges so fragrant—indeed, he felt it so, even as it was. But no turning appeared, and he had lost another five minutes; he vaulted a gate and scrambled up a high mound to find his bearings, if possible. Yes, there was the station, or what looked like it, across some low fields to the right. He was about to jump down on the other side, when he heard the footfalls of a heavy man running, and, looking back, saw over the hedge a constable's helmet bobbing along the road he had traveled. Presently the constable himself, red faced and panting, shot into view, and essayed to leap the gate, but, being heavy and exhausted, he managed to tumble over on his head. The B. A.'s case was urgent, but being essentially humane he hastened to render assistance, only to be roughly grasped by the half-prostrate man.

"Now, then! are you comin' quiet, or will I 'ave to use force?" the officer sputtered, clinging to his arm and trying to rise. His eyes were full of water and dust, and his nose was bleeding.

The young man reflected. He could easily have shaken him off, but to be pursued into the station by an excited constable formed no part of his programme. He would try to conciliate him instead.

"Go where with you?" he asked, mildly.

"To the station-'ouse, you fool," the policeman answered angrily, getting on to his legs. "Where else do you s'pose?"

"I shall be only too delighted my good fellow," the B. A. responded with great politeness. "I've been trying to find the station-'ouse this last bal hour." The joke was a feeble one, but he could not resist it.

"You'l find it fast enough," the man answered, a good deal astonished. He drew his sleeve across his eyes and suddenly released his hold. The expected house-breaker resolved himself (apparently) into one of the grammar-school masters in full costume.

"Perhaps you can explain all this?" the B. A. remarked, a little severely.

The man looked sheepish.

"'Ow was I to know, sir?" he said in a tone of plaintive apology. "A lad as 'ad been sent for a doctor told me he see some one come out of a 'ouse with clo'es under 'is arm, and then run off. So I gives chase, as is my duty to. It's only my borders, sir; and a pretty fool I'll look, goin' back all dirt and my 'elmet broke!" He spoke feelingly.

He must be got rid of at any cost. The young man gave him half a crown toward the helmet, and waited till he started back, mopping and muttering. Then he was off across country like a greyhound.

One daisy-starred field, then another, slipped away under his feet. Before him was a low hedge, which he was about to break through, when the gleam of water caught his eye. He stopped with difficulty on the edge of a muddy stream twenty feet or more across.

It was too bad! The goal in sight, yet absolutely unattainable! He took out his watch—the family heirloom (he had had the presence of mind to set the hands before starting—it always went when he did). Just 8.30—in five minutes the train would start. He might get through by wading or swimming, but the plight he would be in would effectually frustrate his mission; besides, he must be presentable to meet the governors at ten. The first stage of his carefully laid plan had failed ignominiously.

He was deeply dejected, partly from the physical reaction, but chiefly because he read his failure as an omen of the final doom of his hopes. The male cousin (doubtless a second cousin) would now have a whole month to ply his hateful batteries, and the end was already foreshadowed. Robbed of his halo, the head-master's gift seemed hardly worth taking. The river of his thoughts, which had been full of flashing ripples and rainbows during his race, became like the sullen ditch beside him. He had never been so miserable. Presently, as he walked slowly on he saw—but without emotion, for it was now too late—an old plank laid across the stream at a narrow point. It suddenly occurred to him that as he had heard no sound the train might be delayed; anyway he would cross and see. In doing so he nearly came to grief, the plank sinking under his last footstep and floating off down the stream. The station was now in view, and he scrutinized it curiously as he approached; it was not like an ordinary station. At length, adjusting his spectacles—his eyes had suffered somewhat from his study of Greek—he was able to read the sign, "George Dobson, dealer in cement, slates, tiles, etc." The yard and warehouse of a builder's merchant, then, had been the real objective of his morning's chase. What a fool he was, no doubt! but philosophy—the philosophy of grief—came to his aid, and if sorrowful, he was at least calm.

The task of finding a bridge seemed one of remarkable difficulty. After long wandering, much misdirection, and several adventures—some of them unpleasant—with dogs, cowkeepers, milkmaids and washerwomen, most of whom appeared to regard him as an escaped lunatic, he found himself again by the stream (on the wrong side, of course) and near the cement warehouse. The heirloom pointed to ten-thirty, and his only wish was to get back to his rooms and leave the town as soon as possible. The head master, he knew, was a martinet, and, although an explanation might satisfy him, this was exactly what he did not propose to make. He started off—this time down stream—and was absorbed in the composition of a letter of farewells and regrets, when the most appalling sounds suddenly broke on his ears—the bellowing of an angry bull and the unmistakable cry of a woman. The humane instinct which had led him to help the fallen constable again asserted itself; he rushed forward, and, turning a clump of trees, beheld a sight which filled him first with deadly affright and next with the liveliest exultation. On the opposite bank an enormous bull, seemingly a prize animal, was pawing up the earth in large clods and bellowing with the throat of a bovine Stentor; while on a little island in midstream the lady of his morning's quest stood trembling, but safe. Her scarlet jacket was under the animal's hoofs, fast returning to its textile elements, and a small basket of wild flowers, half overturned, lay near the single plank by which she had escaped. It was a picture and a promise—an opportunity worth a hundred railway stations. He was at once himself.

"Don't be alarmed!" he called out, reassuringly. "He can't hurt you." She was terribly frightened, he saw.

"Oh, dear!" she sobbed; "he'll come over the bridge after me when's he done with my jacket!" (The plank was six inches wide.)

"Oh, no, he won't," the B. A. answered, cheerfully. "He'd never think of it, and besides he couldn't, you know."

"What shall I do?" moaned the maiden.

"Be calm!" said the B. A.

What to do, however, was for the moment a puzzle. The case of Leander and the Hellespont inevitably occurred to him; but this particular gulf was largely mud. He was just deliberating whether to attempt it, when to his delight, he saw among the rushes the plank he had crossed on two hours before; evidently it had floated down. In a moment he had it out of the water and spanning the half of the stream between him and the island. The task of supporting the trembling damsel to the bank was safely and, he flattered himself, gracefully performed. Then followed an exploit worthy of a Spanish matador. He crossed both planks, and with great agility rescued the basket of wild flowers from under the very nose of the bull. This was the cream of the adventure, a fragment of his gown left on one of the beast's horns showing the degree of his intrepidity. He was rewarded with agitation, thanks and blushes.

He was charmed with her. If the morning light had improved the school close, in the lady it had worked transformation. To say the truth, but for her dark hair and eyes, the place she obviously filled in the scheme of his destiny, he would not have known her. Her voice even had changed, and she was also much prettier. But she was so timid, he thought, and reserved—so unlike the vivacious person of last night. Perhaps, however, her morning dress, the late adventure and his defective vision explained it.

As she walked slowly on through the fields, melodious birds singing madrigals the while, she confided to him (he looked almost like a clergyman) that she belonged to a society of young ladies founded to promote early rising, habits of devotion, and the study of wild and domesticated flowers. They had come out very early—it was such a lovely morning (people had queer notions of early hours here, the B. A. thought), and being an enthusiast she had remained after the others. Unfortunately, she had strayed into the river field—the rest of the adventure he knew. "I should never have gone near it," she said, "if I had imagined the dreadful thing was about." He did not care to ask her why she had given up her intended journey; and as for the male cousin, he had completely faded from his thou

They were now in the town, passing up a wide avenue facing the schools. The young lady had recovered herself, and was walking without his aid; he still carried her basket, but she held a few of the flowers in her hand. As the long facade of the schools came in sight through the trees, with a figure in cap and gown crossing the lawn, a slight pang visited him, but passed away at once. He felt instinctively that he had gained something of more value than even a head mastership. In fact, he was supremely happy. It must be almost noon, he thought, though the air was still wonderfully cool, when the hour began to be struck. The B. A. had for the present lost all interest in times and seasons, but happening to glance at the school clock he was immediately transfixed. The gilded hands, with the sun full upon them, stood at eight. He settled his spectacles and looked long and hard, but there could be no mistake,—it was the hour at which his strange experiences had begun.

"I think something must be wrong with the school clock," he said, at last, in a rather weak voice.

"I only wish there was," the young lady answered lightly. "I shall be dreadfully late; but I'm afraid it is right—it always is."

The young man appeared dazed. It seemed as if the eight strokes he had counted so carefully that morning were even then ringing in his head. Then his eyes wandered from the dial and encountered something more astonishing, if possible, than the miracle of time set back—or stopped, he did not know which it was. On the opposite footpath, coming quickly toward them, were the male cousin, as large as ever, and,—heaven save his wits!—the Georgiana Smith of the previous evening! There was no question of identity. They both carried traveling wraps, and were talking and laughing—rather too loudly, he thought—and so much absorbed in each other as not to notice him in passing.

The B. A. remained standing for some moments, his features relaxed into an expression of vacuity not uncommon with people at sea in rough weather. There was some excuse for him. He had had a great deal to try him that morning,—crazy clocks, dishonest dustmen, stupid constables, insecure bridges, prize bulls on the war path, and now the phenomenon of duplicate damsels. Only he had the sense to perceive that they were not duplicates, by any means.

"I hope you are not ill, Mr. Brown," his companion said, in alarm. She feared he had been injured while rescuing her.

"Er—no, not exactly," he gasped out, recovering himself in a surprising manner and walking on—he had a good constitution, and was getting used to shocks—"I must have been up very early this morning, that's all. Then you're not Miss"—he was beginning, when he checked himself. "I didn't know you knew my name," he said, instead.

"I think you are going to be the new master at the school," she answered, diffidently. "I hope you'll like it; they've such nice houses, some of them."

He was again completely himself, and replied with emphasis that it was now extremely probable that he should be the new master, but how he should like it would depend on circumstances—he did not say what, but looked many things. In return she told him that her name was Julia Marston, that her father was a solicitor, and her brother was at Oxford. They lived at Elmhurst, in Church street, and he must call, as her father would wish to thank him. He promised to do so at an early date—that very day, in fact.

"There's just one thing I should like to know," he said as they were about to part. "Doesn't your school clock strike double sometimes—eight, for instance, instead of four?"

She laughed—for the first time—very prettily, he thought.

"It's that horrid town clock," she said. "It's always striking just before or after the Don—out of spite. We have 'Town and Gown' here, you know. I hope it didn't get you up at four o'clock."

"I'm afraid it did," he answered, smiling himself as he raised his cap. "But I'm not at all sorry."—A. G. Hyde, in Blackwood's Magazine.

YOUTHS' DEPARTMENT.

THE VILLAGE COWARD.

"'Fraid cat, 'fraid of a snake!
Hold the fence an' scream;
'Fraid of the noise the toad-frogs make
An' the log acrost the stream!"

"'Fraid-cat, 'fraid of the dark!
Cross your heart an' die
If ever you run past dead man's park,
Then break your word an' cry!"

"'Fraid-cat, 'fraid of the girls,
Little Sammy Sim—
Baby eyes an' sissy curls—
Stick your tongue at him!"

"'Fraid-cat"—every one laughed
When he marched away;
Many's the "stay-at-home" that chaffed
At Sammy Sim—that day.

"'Fraid cat, 'fraid of the girls,"
But not of blood or shell,
And the men that followed the tumbled curls
Shrank not in the fire of hell.

A volunteer for a daring deed,
A cheer in the face of death,
A laughing word for his wounds that bleed,
A smile with the failing breath.

And a shaft of marble above the sod,
Is all that tells of him,
But if ever a brave boy found his God,
It's little Sammy Sim!

—Mary Berri Chapman, in the Century Magazine.

Grandmother's Sampler.

"A story? Well, let me see"—Nan's head nodded approval; for when grandma began with "Let me see," 'twas a "sure sign" that she was recalling an experience of her own girlhood,—a true story of long ago. After a few moments the bright knitting needles stopped clicking, and fell uncomplainingly—perhaps glad of a short breathing spell, who knows?—into grandma's ample lap.

"Let—me—see, 'twas fifty-six years ago—it seems but a day to look back upon—that the prize was offered. I had just reached my thirteenth birthday, and my sister Patience was two years younger.

"There was living at that time, in the old Squire Hilton mansion, not far from my father's, the squire's only daughter, Madam Hilton Ware. The people always called her 'Madam' because of her grave, dignified bearing and old-time stateliness. Madam Ware had always taken a great interest in needlework, and her home abounded in rich embroideries and choice bits of tapestry; while one of her most intimate friends told of her having a bit of rare, old lace that was once owned by Marie Antoinette. This she was very proud of, and she kept it safely locked in an ebony box that her grandfather had brought from over the seas."

"Did you ever see it, grandma?" interrupted Nan.

"No, dear! I was little more than a child when Madam Ware died; and at her death all her belongings went to a distant relative, who lived far away in the South.

"As I was saying, when I was thirteen, Madam Ware's carriage stopped before our door; and, seeing mother in the garden, madam beckoned her to the gate. In a few moments mother came into the kitchen where Patience and I were scouring the tins, and told us Madam Ware desired to see us. We hurriedly dried our hands, and with a considerable degree of awe followed our mother out to the carriage.

"After greeting us with a stately bow, she explained to us the object of her visit. To arouse an interest in needlework, she intended to offer a prize to the girl in our neighborhood, who, under fifteen, worked the best sampler, which must be completed within four weeks. The prize was to be a dress pattern of beautiful Oriental silk. My heart almost bounded into my mouth at the thought that possibly I might be the successful one, and get what I had always wanted—a real silk frock."

"Did you get it, grandma?" asked Nan eagerly.

"Wait, child; I haven't finished my story," remarked her grandmother, quietly. Then resuming: "Before Madam Ware drove away that morning, she left Patience and me enough material for our samplers—even to the needles to work them with. She gave us our directions and told us that four weeks from that day all the girls were to assemble with their mothers at her home, where the samplers were to be examined and the prize awarded.

"Every spare moment we could get after this we spent on our samplers, and I suspect we often let our mother do more than her share of the work during those four busy weeks. At the end of the second week I had the entire border of my sampler done, and about one-half of the letters; while Patience was steadily working on the third side of her border.

"'I'm afraid you're hurrying too much,' cautioned mother, as she examined my work one afternoon. 'Twas all she said; for our mothers were charged to make no suggestions and to offer no aid. I saw mother looked troubled when she examined the under side of my work; for I had left a number of loose silk ends and a good many unsightly knots. Mother had always trained us to do our work well; but I was in a hurry to see my sampler completed, and so was careless about the little things that seemed to me of no account.

"At last the eventful day arrived; and, dressed in our Sunday frocks and well-starched sunbonnets, we started on foot—father had to use the horse to go to mill that day—to Madam Ware's. Patience and I had our samplers carefully folded up in clean white linen; and I can now see Madam's look of approval, as, with childish courtesy, we handed them to her.

"All the little girls in the neighborhood were there, and one could plainly see by their restlessness and furtive glances toward Madam Ware how anxious each one was. And no wonder! For a silk dress in those days was something almost beyond a young girl's dreams, even.

"The excitement greatly increased when Madam Ware and two lady friends, who were visiting her, went into the back parlor where our needlework had been arranged for inspection. Many a little girl's neck was strained that just a tiny peep might be taken through the partly closed door.

"After waiting in suspense, it seemed hours, though, in reality, it was a very short time,—Madam Ware came into the room, and placed on the mahogany table the silk pattern,—the much-longed-for prize

'Oh!' we exclaimed together, and forgot for the moment the suspense we were in, so carried away were we with the beauty and richness of that delicate fabric.

"Presently Madam again came into the room with two samplers in her hands. My heart gave a bound; for I immediately recognized one of them as my own, while the other was my sister's. What could it mean? Surely there was but one prize offered!

"In an instant a hush settled over us—you could have heard a pin drop—as Madam Ware came forward

"'After careful consideration,' she said, 'we have settled on two samplers that deserve special mention; but, as you know, only one can receive a prize.'

"She stopped and looked over to the sofa where Patience and I were seated. My breath almost left me, so excited I felt. Mother quietly reached over and took my hand.

"'This one,' continued Madam,—and she held mine up to view,—presents, as you all see, a most excellent appearance on the outside; and the prize'—'is mine!' I ventured to whisper, as she hesitated a second; and I involuntarily moved forward, as though to receive it—'would have been given to the one who worked it, Miss Rachel Winship, had sufficient care been taken with the under side.' And, as she spoke, she turned the sampler over, plainly showing the knots and loose silk ends. 'As it is, the prize has been awarded to her sister, Miss Patience, whose work shows uniform care in what wasn't expected to show. It is very gratifying to me to be able to reward such meritorious work.'"

"And you wanted it so much!" sympathized Nan. "Didn't you feel dreadfully?"

"Yes, dear; and, although I was glad for Patience," continued grandma, gravely, "I was a long time in getting over my bitter disappointment,—all the more bitter because it was the result of my own carelessness. But the lesson it taught me has lasted longer and has helped me far more than the dainty silk frock could possibly have done.

"As mother was about to leave my room that night, after I had gone to bed, she whispered gently, 'Remember, dear, as in the case of the sampler, that whatever we make of ourselves in life is sure to depend, in great measure, upon the care we pay to our little, thoughtless habits.' And, Nan, I've always remembered it"—Adelbert F. Caldwell, in Zion's Herald.

——Ordinarily, the toad hibernates in the earth, preferably in dry soil not apt to freeze. It buries itself backward, its hind feet and the end of its body serving to scoop out its hole, while it pushes itself in with its forelegs. Once buried, it leaves no trace whatever of its hiding place. When it is in a temperature near the freezing point its own temperature is three-fourths to one and one-fourth degrees higher than that of the surrounding medium.

THE HORSE.

May King (2.20) and Lookaway (2.22 1-2).

It is the quality rather than the quantity of the get of any given stallion that is the test of his merit as a sire, that is to say a horse having a 2.10 performer that can go out and win money in select company is the choice of the up-to-date breeder, rather than the horse that has sired numbers with records around 2.30, for the mark of most men who are breeding is a high one. They are aiming to breed the two-minute trotter. It is the belief of many, and with a show of reason, that when the two-minute trotter arrives he will be the product of the Electioneer and Wilkes cross. Beyond a question of dispute these two families are the leaders today in the race for honors on the trotting turf, and the success that has attended the comparatively limited experiment of crossing the blood of these two mighty families has been highly successful.

Perhaps the most striking example of this is the case of Bingen, that has been a phenomenon from colthood up to maturity. Bingen is by May King (2.20), son of Electioneer, and out of Young Miss, by Young Jim; second dam, Miss Mambrino, by Red Wilkes; thus giving a double cross of the Wilkes, as the sires of both his first and second dams are sons of George Wilkes. Other notable examples of the success of the Wilkes-Electioneer cross are Advertiser (2.15½), sire of Adbell (1) (2.23), the champion yearling trotter, and Hummer, sire of Bouncer (2.10), etc. Advertiser is by Electioneer, out of Lula Wilkes, by George Wilkes. Hummer is by Electioneer, out of Edith, by George Wilkes.

Early and extreme speed, as is well known, has been a characteristic of the Electioneer family of trotters ever since the colthood of Fred Crocker and Wildflower, and Bingen is no exception. As a two year old he trotted a public exhibition mile over Rigby Park in 2.12½, which has but once been beaten, and then by another of his tribe, the incomparable Arion, whose record mile of 2.10¾ still stands, and is likely to stand for many years, as a bright and shining mark for aspiring breeders to shoot at. As a three year old Bingen trotted to a race record of 2.12½. He was kept in the stud as a four year old, but last year he fulfilled his early promise by going out and beating many of the cracks of the year, and retiring to winter quarters with the season's best record for trotters, 2.06¾, to his credit.

The services of a horse that can sire such a performer as Bingen are, and deservedly so, much more in demand than those of a horse who never has shown his ability to sire sensational speed, though he may have a large number of performers to his credit.

Bingen is one of the very early foals got by May King. As a matter of fact, up until May King came to New England three years ago, when he became the property of Mr. Charles Whittemore, proprietor of Lookout Stock Farm, South Natick, Mass., he had very few living foals all told. We took pains to inquire into the matter, and from information received from reliable sources, from such gentlemen as the Hon. J. C. Sibley, proprietor of Prospect Hill Stock Farm, and who brought May King East from Palo Alto, and Mr. William Spier, proprietor of Suburban Stock Farm, who bought him from Mr. Sibley and subsequently sold him to A. Smith McCann of Kentucky—from inquiries we say from these reliable quarters, we learned that he was used very little in the stud at these farms, and we should presume that he had not 25 living foals as the result of his services while he was at Prospect Hill and Suburban stock farms. From all that we can learn, too, he as not very well patronized while he was in Kentucky. Just why this should be it is not easy to understand, because he is certainly an attractive individual, although not a large horse, and his breeding is very stout, for his dam is the celebrated race mare May Queen, which took her record of 2.20 many years ago to high-wheel sulky in the fifth heat of a winning race, and she is by Norman 25 (sire of Lula, 2.15, and the dams of 20, including Norval, 2.14¾, sire of 48).

May King was in training more or less while he was at Prospect Hill and Suburban farms, which naturally interfered with his stud services in those places, and while he was standing in Kentucky he was in a locality where there was quite a strong antipathy to the Electioneer family of horses. But it was not long before breeders were seeking his services, for so soon as Bingen came out and showed his wonderful form as a two year old, his services were sought after.

In spite of his limited number of foals he has now seven in the list. Beside Bingen (2.06¾) he has Genevieve (3) (2.16½). Chestnut King, bay gelding (2.17½), Allie King (2.19½), Chestnut King, chestnut gelding (2.22½), *Pi Lifero* (2.24½), Nordhoff (3) (2.29½), and he is the sire of Nahesa (yearling record 2.41).

May King is a horse of high symmetrical finish. As we have remarked, he is not a large horse in the sense of height, but he is a big little horse. To quote the words of Mr. Sibley, in a letter to the writer regarding May King, "While not large he is one of the most strongly built horses we have ever seen, extremely muscular, well arched loins and a very brainy head." This brief and concise description fits May King to a dot. He is roundly turned, stoutly quartered, well muscled up, with a perfect set of feet and legs and a clean-cut neck. He is just what the word symmetry is intended to convey to the mind,—a properly balanced horse with each structural part nicely adapted to every other part. His likeness, which appears on our title page, shows him to be, as nearly as the photographic art can picture a horse, just what he is, a very smoothly turned and attractive looking horse. He is with all his other admirable qualities a horse of splendid disposition, genile as a kitten and safe for a child to fondle. He transmits his own individuality to his progeny to quite a remarkable degree. The young things by May King now owned at Lookout Stock Farm are a very even lot of foals, nice lookers, and it is easy to pick his get from among the foals of various stallions.

Lookaway is May King's companion in the stud. Lookaway is a young sire, yet he has Nowaday (3) (2.14½), Winola (2 20½) and Looksir (3) (2.24½) to his credit. He is a splendidly bred horse, indeed, the very choicest and rarest in some respects. He is by Look, a son of Nutwood (2.18½) and Zither, by Woodford Mambrino. Look's second dam is Tulip, by Abdallah 15. Lookaway's dam is Rosalind, by Harry Clay 45, the sire of the dams of 37 standard performers; his second dam is Rose Terry (dam of Nell, 2.27), by Hambletonian 10; third dam by Vermont Black Hawk 5.

Look, sire of Lookaway, died at six years of age, yet 13 of his get have taken records from 2.18¾ to 2.30, and he is the sire also of Jean Look, dam of the crack gelding Prayteli (2.09½).

A careful analysis of this pedigree of Lookaway will show him to be, as we have already said, a rarely bred horse; every strain of blood in his pedigree has been distinguished on the trotting turf.

Lookaway has a record of 2.22½, but this is nowhere near the limit of his speed, as he has shown a mile in 2.08½, and he is a very natural trotter. He is a horse that stands over 16 hands high, and weighs 1200 pounds, and it seems reasonable to expect that fillies by Lookaway, bred to May King, and vice versa, fillies by May King, bred to Lookaway, will prove a happy nick.

LEE.

The Boston Horse Show.

The prize list of the Boston Horse Show, which is to be held in Mechanics building from April 17 22, inclusive, has just been issued. There are 125 classes, to which the splendid sum of $19,000 in prizes is devoted, exceeding by $4000 the amount of prizes given at the last horse show.

Those classes in which our readers are more particularly interested are the trotting, driving and roadster classes. These comprise 16 classes and of this number one-half are devoted to breeding classes for the trotter. In our judgment a step in the right direction has been taken in making more definite the conditions governing the classes for stallions four years old and over standing for service, and for brood mares four years old and over. The conditions state that in both instances the produce of stallion or mare will be considered in judging. Exhibitors will therefore know what to expect.

Following are the trotting and roadster classes:

Trotters.

BREEDING CLASSES.

All horses entered in these classes must be standard by the rules of the American Trotting Register Association, satisfactory proof of which must accompany the entry. To be shown in hand, or by the side of a saddle horse.

Class 3—Champion class, open to all stallions which have taken a first prize at any recognized horse show, and to the stallions winning first prize in classes 4, 5, 6 and 7; $150, reserve ribbon.

Class 4—Stallion, to be shown with four of his get, the oldest of the get not to exceed six years. Stallion and get to be considered; $150, $75.

Class 5—Stallion, 4 years old or over, kept for service; $100, $50.

Class 6—Stallion, 3 years old (foaled in 1896); $100, $50.

Class 7—Stallion, 2 years old (foaled in 1897); $100, $50.

MAY KING, 2.20, BY ELECTIONEER 125; DAM, MAY QUEEN, 2.20, BY NORMAN 25.
Sire of BINGEN, 2.06 3-4, Champion Trotter of 1898.

Four of the get of a stallion, either thoroughbred, registered hackney, standard-bred trotter, or any recognized coaching breed, the stallion to be registered in any recognized Stud Book, out of any breed of mare, the get not to exceed four years of age; and to be considered and judged by their action, style and general uniformity, and their adaptability to heavy harness or carriage purposes. $200, $100.

It is to the interest of every breeder who has anything worth showing to be represented at this exhibition, and we hope to see them respond generously.

Something About Theorists.

LEXINGTON, KY., Feb. 1. 1899.

There is a good deal of amusing talk indulged in, usually by people not remarkable for an excess of gray matter in the brain, on the subject of what they see fit to term "theorists." In the simplicity of their souls these people imagine that a theorist is some fantastic creature utterly unlike the ordinary human being, and fit for little else than a mark for their silly attempts at sarcasm. Some of these people designate their own peculiar kind of intelligence or want of intelligence (generally, the latter) as "common sense," and some others "practical ideas." In the density of their ignorance they are unaware that every advance in civilization, every step taken towards the amelioration of the condition of mankind, had its origin in a theory; in fact, was in its inception nothing but a theory, and very frequently a theory which these "common sense," "practical" gentlemen treated with ridicule and contempt.

Every idea, religious, ethical, scientific or mechanical, which has tended to lift man above the condition of the brute, or civilized man above the savage, has been but a "theory" until put in practice. At first it has usually been met by the weak ridicule of the gentlemen who plume themselves upon their "common sense" and "practicability," and these intensely practical people have generally lacked the acumen to discern that their wonderful "common sense" was, as a rule, based on the most utterly hopeless ignorance and stupidity. Their vision was bounded by the length of their noses, and they imagined that what was beyond its narrow range was a land of myths and shadows. What they didn't know was not worth the knowing, and the whole moral, physical and intellectual universe was comprehended within the extremely limited space occupied by their brains, just as the mole regards his little burrow as including the whole of creation.

To this class of "common sense," "practical" philosophers Columbus was a dreamer, or most probably an imposter; Watt was a crack-brained enthusiast, and Sir Isaac Newton a pedantic and visionary ass. Copernicus was a wild and crack-brained speculator in things he knew nothing about, and Galileo fit only to be burned with his writings. The aboriginal gentleman in his "dug-out" is about as numerous and as rampant today as when first evolved from his Simian ancestry. He is about as wise and as arrogant and self sufficient in his wisdom as he was then. He still prides himself on his "common sense," and the quality of that article is about the same now as then. Fortunately for mankind, however, he has ceased to be regarded (by everybody except himself) as an oracle. His self-sufficiency is in proportion to his ignorance and stupidity, and these are absolutely unfathomable.

These gentlemen never appear to realize (of course they never think) that every intelligent act that has been performed since the world began has been performed upon a theory. Man until he begins to theorize is a brute. The first evidence of intelligence is manifested when the process of theorizing begins. It is the act that differentiates a man from a monkey.

It is well to distinguish between theorists that are wise and those that are unwise, but the people who use the word "theorist" without distinction, as a term of reproach, only prove one thing, and that is their own inability to distinguish between theories which are rational and those which are irrational. They evidently regard all theories as alike mischievous, and it is enough for them that what they condemn is beyond their own experience or observation. They treat them all as Mahomet Ali (I believe it was) treated the Alexandrian library "If it contains anything contrary to the Koran, it deserves to be burnt. If it does not, the Koran is enough without it, so let it be burnt in all events." If the things they condemn are not in their little brain pans they are wrong; if they are in them, these little brain pans are enough without them. Possibly the greatest wonder of these gentlemen is excited when they discover that there are some things which they do not know, although they may be a little more surprised when they find that some things which they do not know are true. They have been so long mistaking

The rustic murmur of their burg
For the great wave that rolls around the world,

that when they really wake to consciousness, and discover that there are really some things of which they are ignorant, their astonishment will be supreme. Among other things which they do not yet seem to have learned is the solemn fact that the only man in the world absolutely without a theory is the idiot.

It is scarcely necessary to point out the particular turf writers who resort to the tremendously logical methods of argument above described. Their use of such methods and their supercilious contempt for all ideas which do not exactly chime with their pet conceits, sufficiently indicate their calibre as reasoners, and it may be that they will be sufficiently recognizable by the portrait presented.

In "The Horse of America" Mr. Wallace denies that "Old Pilot" the sire of Pilot Jr., could trot. Maj. H. C. McDowell and Mr. William McCracken, both of whom have been Kentucky horsemen during their whole lives, and the latter of whom is now 80 years old, state that he was a trotter as well as a pacer. Major McDowell actually saw him trot when a boy, and Mr. McCracken derived his information from one of Pilot's owners. Major McDowell's testimony is positive, and is that of an eye witness. It is worth a good many cartloads of the statements of gentlemen who simply state what other people have told them. Whether important or not, the fact will go down into history that Old Pilot was a trotter as well as a pacer, Mr. Wallace's book to the contrary notwithstanding. Like some of Mr. Wallace's witnesses, I never saw Old Pilot trot. This fact may be partially accounted for by the circumstance that I never saw the horse.

An intelligent and successful driver said in the presence of the writer the other day, "I would not have a stallion that did not both trot and pace." This gentleman has been for a number of years training youngsters, mainly the get of a double-gaited horse. He thinks they come to their speed much faster than youngsters sired by an exclusively trotting gaited horse, and that they are more apt to develop extreme speed. Personally I haven't a doubt of the correctness of both these conclusions. The fastest yearling trotter I ever saw early in her yearling form was a filly got by a stallion that was the sire of both trotters and pacers. She was out of a mare that could "run away" at either of the gaits. This filly trotted a mile in 2.45½ when but 13 months old. She was turned out shortly afterwards and not worked at all late in the season. If nothing goes wrong with her she will be one of the great two year olds this year.

An old Kentucky trainer, who has produced more very fast colts and fillies at a very early age than any man in the State I know of, will not use anything but double-gaited mares in the harem, at least he greatly prefers them. The fastest trotter this gentleman ever bred got a record of 2.08¾, and the fastest pacer one of 2.07¼. They were both fast youngsters. It has frequently been remarked that most of the great trotters have been double gaited. For a long time the trotting purists hadn't much to say about this fact, and it was suppressed as much as possible. It is, nevertheless, undeniable. The pace is very potent in producing the trot, and were the pacer abolished, it is a little doubtful whether the trotter would very long survive him; at least he would be greatly diminished in numbers and very likely in speed. Although the English Messenger's case there is no impossibility that his unknown crosses were pacing crosses, as a few generations before Messenger there was an abundance of pacing blood in England. His "cold-blooded" ancestry soon ran back into the unknown. Even now in England blood like that of Messenger's fails to produce trotters. The pacers, it may be, are too far back. It would not be very strange if it turned out to be the fact that Brother Comstock's "structural incongruity" was the real source of trotting speed, and the stone that was rejected by the builders became the chief corner stone of the temple.

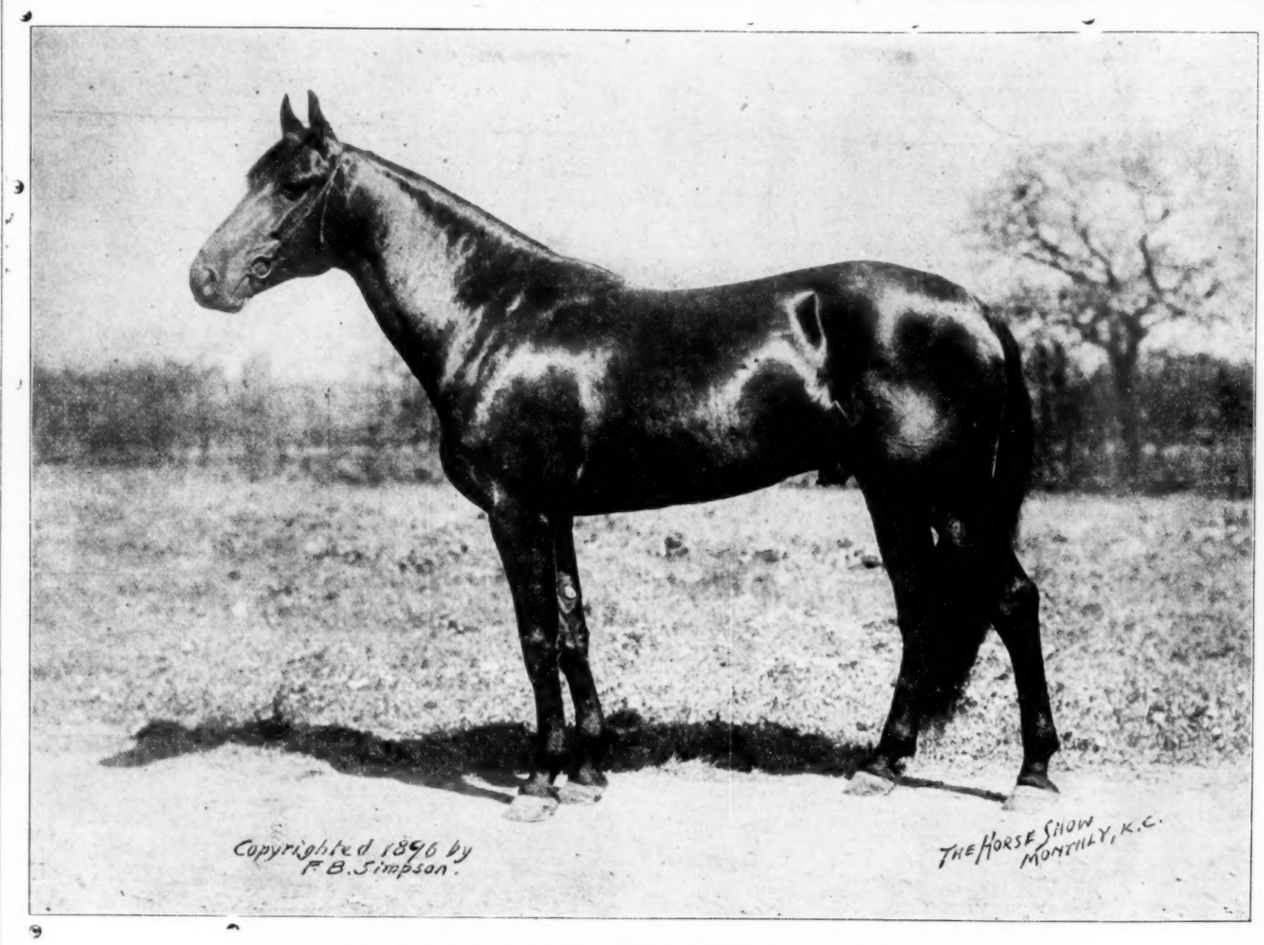
It is worthy of note that in Russia, where pacers are abundant, is found the closest approximation to the American trotter extant, the Orloff, the fastest race of trotters known outside of this country. They are much faster than the French horse, and in France pacers are strictly tabooed.

I would much rather take my chances of producing trotting speed from two good pacing mares than from a round dozen of the best thoroughbred mares that ever existed, or from one pacing horse, than an unlimited number of runners. I believe that the very large majority of breeders and trainers would be of the same opinion. People learn a good deal from experience, and the trotting-horse breeders in this country have had a great deal of it in the last 15 or 20 years.

Don't you believe that German Peat Moss is an economical and healthy horse bedding? Ask C. B. Parrett, 45 North Market street, to send you testimonials.

The Vermont horseman, Mr. R. W. Goodrich of Poultney, that State, was in Boston on the 13th inst. He was on his way to the Fasig sale in New York. Mr. Goodrich expects to have about 20 pairs of carriage horses on hand by the last of April.

Mr. Walter M. Badley of Charlestown got a price on John Nolan about one year ago, and trainer Jerry O'Neil advised him to buy the colt, but, unfortunately for him, he did not accept O'Neil's advice.



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Class 8—Filly, 2 years old (foaled in 1897); $75, $35.

Class 9—Brood mare, 4 years old or over; $100, $50.

Class 10—Yearling colt (foaled in 1898); $50, $25.

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Class 15—Colt, filly or gelding, 2 years old (foaled in 1897); $100, $50.

Roadsters.

Class 16—Horse, four years old or over; $100, $50.

Class 17—Pair of horses, four years old or over; $125, $60.

Class 18—Horse and best appointed road rig (first prize is offered by Mr. John E. Thayer); $100, $50.

Class 38 ought to prove a very interesting one, and we want to see the trotter well represented in that class, as well as in all the other classes that he has an opportunity to compete in. The conditions of Class 38 are as follows:

Yankee Methods of Farming.

This picture is a rough sketch taken from one of the full-page photographic views in the new "Planet Jr." catalogue for 1899. It shows how they raise onions by the shipload in Yankeeland; and it rather takes one's breath away to think of one onion grower investing in 20 drills just for sowing the seed.

The "Planet Jr." catalogue for 1899 is full of pictures like these. Farmers, and farmers' sons, and farmers' wives, and "their sisters and their cousins and their aunts," will all want to have a turn at this interesting pamphlet; for it shows views of farm scenes all over the world, with the different crops and methods of cultivation, and the oxen and horses, and other kinds of motive power. Of course it's an advertisement; that's what it's made for, but it's one of the best advertisements that we have seen, and one of the most interesting that any farmer is likely to get hold of.

You can get a copy free by sending a postal to S. L. Allen & Co., Philadelphia.